DOCUMENT RESUME

ED 188 847 RC 012 122

AUTHOR	Chareonchai, Ruang: And Others
TITLE	Thai-Alberta Co-Operative Assessment Project Concerning Thirty-Two Rural Secondary Schools in the Third National Economic and Social Plan, Thailand (1972-1976). Final Report.
INSTITUTION	Alberta Univ., Edmonton. Faculty of Education.: Ministry of Education, Bangkok (Thailand).
SPONS AGENCY	International Bank for Reconstruction and Development, Washington, D.C.
PUB DATE	Mar 80
NOTE	436p.
AVAILABLE FROM	Department of Educational Administration, The University of Alberta, 7-104 Education North, Edmonton, Alberta, Canada T6G 2G5 ($23.00)
EDRS PRICE	MF01/PC18 Plus Postage.
DESCRIPTORS	*Curriculum Evaluation: Demography: *Educational Assessment: Educational Finance: Facilities: Organization: Rural Education: *Rural Schools: *School Administration: School Organization: *Secondary Schools: *Systems Analysis: Tables (Data): Teachers
IDENTIFIERS	Alberta: *Thailand

ABSTRACT

This extensive assessment project report focuses on the Rural Secondary Schools (RSS) Project in Thailand. The background, design, rationale and objectives of the assessment are described, as are the eight phases of the study: reconnaissance: proposals: basic planning and pre-testing: data collection: analysis: academic review: final report: and analytical review. Named as the most significant aspect of the assessment process is the total cooperation and parity between Thai and Canadian associates from the time of initial talks in 1975 to submission of the final report in 1980. Sample schools are from medium-sized provinces, districts, and sub-districts: and students are about evenly divided between males and females, with almost two-thirds coming from middle-class families. Discussed in depth are the following: nature and implementation of curricula: organization and administration of the project schools: physical facilities: and school finance. Following these items is a detailed report on interviews with key personnel in Thailand's Ministry of Education. Also included is a description of some of the initial and visible outcomes of the RSS project when measured in terms of school generations. The design of the assessment follows models postulated by Stufflebeam (1971) and Metfessel and Michael (1967). (AN)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED188847

FINAL REPORT

THAI-ALBERTA CO-OPERATIVE ASSESSMENT PROJECT

CONCERNING RURAL SECONDARY SCHOOLS

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
L R Gue
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

RC 012122

BANGKOK and EDMONTON • 1980

FINAL REPORT
OF THE
THAI-ALBERTA CO-OPERATIVE ASSESSMENT PROJECT
CONCERNING
THIRTY-TWO RURAL SECONDARY SCHOOLS
IN THE THIRD NATIONAL ECONOMIC AND SOCIAL PLAN,
THAILAND
(1972 - 1976)

JUL 1980
ERIC/CRESS
RECEIVED

Department of General Education
Ministry of Education
Bangkok, Thailand

and

Faculty of Education,
The University of Alberta
Edmonton, Canada

©

BANGKOK and EDMONTON
MARCH, 1980

Photographs by

Leslie R. Gue and Alison Bell

CO-OPERATIVE ASSESSMENT PROJECT CONCERNING THIRTY-TWO RURAL SECONDARY SCHOOLS IN THE THIRD EDUCATION PROJECT OF THAILAND

ASSESSMENT PROJECT TEAM

Co-Directors

Dr. Ruang Chareonchai
Deputy Director General
Department of General Education
Ministry of Education
Thailand

Dr. L.R. Gue
Professor of Educational Administration
The University of Alberta
Edmonton, Canada

Associates

Dr. Sawat Udompoch
Deputy
Office of Special Projects
Department of General Education
Ministry of Education

Mr. W.C. McCarthy
Field Co-ordinator
Thailand Projects
The University of Alberta
(Phases I - VI)

Dr. Wanlop Kansup
Head, Evaluation Section
Planning Division
Department of General Education
Ministry of Education

Dr. Thomas A. Blowers
Director, Research
Edmonton Public School Board
Edmonton, Canada
(Phases III - VI)

Mrs. Jitsai Padungrat
Office of Special Projects
Department of General Education
Ministry of Education

Dr. M. Kuefler
Assistant Principal
O'Leary Composite High School
Edmonton, Canada
(Phases III - IV)

Consultants

Dr. Frank M. Vivio
Evaluation Specialist
East-West Center
Honolulu, Hawaii, U.S.A.
(Phases III - IV, VII)

Dr. Leonard Berggren
East Asia and Pacific Region
International Bank for Reconstruction and Development
Washington, D.C.
(Phases III, VII)

Dr. Kenneth King
International Development Research Center
Ottawa, Ontario, Canada
(Phase VII)

ACKNOWLEDGEMENTS

The successful completion of the Co-operative Assessment Project has been possible only because of the support and kindness of many persons in the Ministry of Education, Thailand; The University of Alberta, Edmonton, Canada; the school systems in Edmonton; and the International Bank for Reconstruction and Development, (World Bank). It would be impossible to mention everyone to whom the project is indebted, but the following persons made important and enduring contributions to the planning and implementing of this research.

Dr. Kaw Swasdi Panich, Minister of Education, Thailand, gave the support of the Ministry to the investment of time and effort made by his staff. Two Directors-General, Mr. Smarn Sangmahli (now Deputy Under Secretary of State for Education) and Mr. Suradej Vissesurakan, gave their full and enthusiastic support in reaching the understandings between The University of Alberta and the Department of General Education of the Ministry of Education. Dr. Sawat Udompoch, Deputy, Office of Special Projects, carried much of the burden of organizing the Thai Associates for action and shared the translating chores. Dr. Wanlop Kansup, Head, Evaluation Section, Planning Division of the Department of General Education, contributed steadily and knowledgeably about the technical details of the process, and shared the burden of translating the research instruments from English to Thai. Mrs. Jitsai Padungrat, Office of Special Projects, shared in the translation responsibilities and spared no effort to make the day-to-day details of the many field trips workable, including reminding a Canadian Co-Director of certain essentials in the real world of time and money. In making travel arrangements, Mrs. Chinda Nantasenii operated flawlessly in the milieu of airlines, trains, and other forms of transportation.

Three Principals or Directors of comprehensive schools not in the project assisted greatly in allowing the researchers to test the questionnaires and interview schedules during the Basic Planning phase.

Mr. Somboon Srisoot, Director, Haad Yai Wittayalai; Mr. Banchong Pongsastra, Director, Yuparaj Wittayalai, Chiengmai; and Mr. Dilok Wajanasoontorn, now Principal, Khon Kaen Wittayayon School, Khon Kaen, cheerfully made the arrangements for the try-outs.

The Principals of the sixteen sample schools deserve the deepest thanks of the researchers for accepting and carrying out the task of motivating themselves and their staff to complete the thousands of instruments sent to them. Special thanks are due the Principals of the eight site-visit schools in the sample, who happily and efficiently received and hosted their guests for two days or more.

Seventeen key persons in the Ministry of Education, Bangkok, willingly co-operated in being interviewed concerning their perceptions of the total project and of the broader arena of secondary education in general, in Thailand. The Office of Special Projects arranged for the services of a team of coders, who, under the skilful direction of Mr. Manoon Kanjanapakde and Mrs. Yupin Sinturawet performed most efficiently the massive task of coding for computer processing the data from the questionnaires and interview schedules. The services of the back-translators of the instruments, under the direction of Miss Usa Kanchavatee, are gratefully acknowledged, together with the help of the five Thai graduate students in Educational Administration at The University of Alberta who translated scores of pages of data responses from Thai to English.

The assistance of Dr. Sen Keoyote, who spent six weeks in Canada during the analysis phase, is deeply appreciated. Without his help the Interim Report would not have been ready for the Academic Review in December, 1979.

Dean Walter H. Worth of the Faculty of Education, The University of Alberta, gave firm support to the Assessment Project at all times. His advice and counsel during the Reconnaissance Phase in Thailand in 1978 added materially to the speedy development and acceptance of a workable proposal for the Assessment. The loyal support of Mr. William McCarthy, Field Co-ordinator of the Thailand Projects at The University of Alberta, and Associate in the Assessment, is much appreciated. Sincere thanks are due also to the representatives of educational systems in the province of Alberta, Canada, who ably assisted in the Reconnaissance Phase: Dr. Earle Hawkesworth, Deputy Minister of Education, Alberta; Mr. Michael Strembitsky, Superintendent, Edmonton Public School Board; Dr. Harold A. MacNeil, Superintendent, Edmonton Catholic Schools.

The practising administrators' views in the Basic Planning Phase were kept to the fore by Dr. M. Kuefler, Vice Principal of O'Leary High School, Edmonton. The redoubtable energy and skill of Dr. Tom Blowers, Director, Research, Edmonton Public School Board, added significantly to the success of the Basic Planning and Data-gathering phases. Mrs. Christiane Prokop, computer programmer for the Department of Educational Administration at The University of Alberta, worked typically far beyond the call of duty in developing the coding system for the instruments and programming the data for processing. Michael Wodlinger spent many days assisting in the analysis of free response and other data. Arlene Cowan patiently and neatly typed the final English versions of the instruments. Doreena Matheson extended her job-description noticeably in the production of the Interim Report and Final Report, under considerable pressure, and always with cheer and speed.

Deepest thanks are due to Dr. Frank M. Vivio, Evaluation Specialist, East-West Center, Honolulu, for valuable suggestions at the Basic Planning phase, and insightful scholarly comments during the Academic Review. Dr. Leonard Berggren of the World Bank made a powerful contribution to the Academic Review. Dr. Kenneth King of the International Development Research Centre, Ottawa, Canada, brought the result of years of intensive activity in international development to the analysis of the Final Report and the research itself.

To all these persons, and to the host of others, seen and unseen, whose efforts have made this research and Final Report possible, go our deepest and most sincere thanks.

Ruang Chareonchai
Co-Director

L.R. Gue
Co-Director

FOREWORD

This study was a conscious blending of two approaches to knowledge and to research -- systems theory and phenomenology. A great deal of numerical data are presented in tabular form, sometimes accompanied by the results of tests of statistical significance. A considerable further amount of data are free-response, narrative or photographic records. It is hoped that the results will inform and give the reader an appreciation of the magnitude of the RSS Project and of this Assessment. A number of comments about the Report itself may assist the reader in interpreting its various facets.

Many five-point interval-scale measures were used, with various descriptors. A mean of 3.00 was considered the central tendency, but due to the number and variety of descriptors used in item wordings and headings, it was arbitrarily decided to call a value of 3.00 the "mid-point," a semantic symbol capable of semantic elaboration. The following set of numerical and semantic equivalents was arbitrarily adopted and used throughout the study in translating numbers into concepts:

Numerical Value	Semantic Equivalent
4.50 - 5.00	Very much above (the mid-point)
4.00 - 4.49	Well above
3.50 - 3.99	Considerably above
3.20 - 3.49	Somewhat above
3.01 - 3.19	Slightly above
3.00	Mid-Point
2.80 - 2.99	Slightly below
2.50 - 2.79	Somewhat below
2.00 - 2.49	Considerably below
1.50 - 1.99	Well below
1.00 - 1.49	Very much below (the mid-point)

Tests of statistical significance of difference of means (F test and t-test) were performed for between-group and within-group differences, but were reported at the discretion of the writer. Standard deviations were considered to convey a great deal of useful information and are reported in almost all tables. Because of the need for a measure of economy in reporting, ranking procedures were used with some large arrays of free responses. This occasionally cut off a fairly substantial number of responses, but the data are available. Data were grouped for all sixteen sample schools, but are stored in such a manner as to make retrieval by school possible in the future.

Extensive summary comments are placed at the end of each chapter to assist readers. Evaluative comments are consciously included in reporting on some specific items, at the request of the research Associates. Fairly substantial changes in reporting style were requested at the Interpretation-Review stage, which increased the bulk of the report considerably, but also the information it conveys. For all errors, omissions, illogicalities and redundancies in the writing of this Report, I take full responsibility.

In writing the report I have attempted to avoid what John Kenneth Galbraith has termed, "the peculiar aridity of writing in administration," and to make the report, instead, an accurate, scholarly, unvarnished yet considerate account of real people doing real things in the real world -- and always in Thai style.

Participating in this Co-operative Assessment Project has been a demanding yet rewarding experience, both professionally and personally. To all my Thai and Canadian Associates and friends, my deepest appreciation.

Leslie R. Gue

Edmonton, Alberta, Canada
March 17, 1980.

TABLE OF CONTENTS

Page

ASSESSMENT PROJECT TEAM i

ACKNOWLEDGEMENTS ii

FOREWORD v

LIST OF TABLES xix

LIST OF APPENDICES xxvii

LIST OF FIGURES xxviii

FIGURE 1 xxix

CHAPTER ONE: THE CO-OPERATIVE ASSESSMENT PROJECT 1

1. BACKGROUND 1

2. RATIONALE FOR THE ASSESSMENT 5

3. OBJECTIVES OF THE ASSESSMENT 5

   3.1 General Objectives 5

   3.2 Specific Objectives 6

4. THE ASSESSMENT PROCESS 6

   4.1 Negotiation 7

   4.2 Reconnaissance Mission (July, 1978) 7

   4.3 Detailed Proposal (August - September, 1978) 7

   4.4 Basic Planning and Pre-Testing (January - February, 1979) 7

   4.5 Data Collection (July - August, 1979) 8

   4.6 Data Analysis (September - November, 1979) 9

   4.7 Interpretation-Review (December, 1979) 9

   4.8 Final Report (December, 1979 - March, 1980) 9

5. DESIGN OF THE CO-OPERATIVE ASSESSMENT 9

   5.1 Evaluation 9

   5.2 Samples: Schools 10

Page

5.2.1 Sample Schools 10

(a) Phase 10

(b) Geographic location 11

(c) Level of education 11

(d) Size of school 11

(e) Type of education 11

5.2.2 Selection of Schools for Site Visits 14

5.3 Samples: Individuals 16

5.3.1 Individuals Completing Questionnaires 16

5.3.2 Individuals for Interview 16

5.4 Instrumentation 19

5.5 Documentary Study 20

5.6 Data Analysis 20

6. SUMMARY COMMENTS 21

CHAPTER TWO: EDUCATIONAL PROFILES IN THE RSS PROJECT 23

1. DEMOGRAPHIC DATA 23

1.1 General Setting of the RSS Schools 23

1.2 Teacher and Student Populations in the RSS Schools . . 24

2. PROFILES OF PRINCIPALS 31

3. PROFILES OF TEACHERS 34

3.1 Demographic Data 34

3.2 Teacher Education 34

3.3 Teaching Experience 36

3.4 Teaching Assignments 39

Page

4. PROFILES OF STUDENTS 39

5. PROFILES OF PARENTS AND ALUMNI 45

  5.1 Age of Parents and Alumni 45

  5.2 Level of Education of Parents and Alumni 45

  5.3 Number of Parents' and Alumni Children Attending School 46

  5.4 Grade Levels of Children of Parents and Alumni 47

6. PROFILES OF NEARBY SCHOOLS 48

7. SUMMARY COMMENTS 48

CHAPTER THREE: FINDINGS: CURRICULUM 50

1. PROGRAMS AND COURSES 50

  1.1 Selection and Use of Practical Arts Electives 50

    1.1.1 Reasons for Choosing Practical Arts Electives . 50

    1.1.2 Availability of Practical Arts Courses 52

    1.1.3 Practical Arts Being Taken (M1) 52

  1.2 Extent of Student Choice of Optional Courses 53

  1.3 Enrolments in Academic Subjects 57

  1.4 Adequacy of Program Articulation 58

  1.5 Program Strengths 59

  1.6 Needed Program Improvements or Modifications 60

  1.7 Course Deletions 61

  1.8 Involvement In Curriculum Development 61

  1.9 Difficulty of School Subjects 62

  1.10 Importance of Courses 67

  1.11 Co-curricular and Extra-curricular Activities 71

Page

2. ADEQUACY AND FLEXIBILITY 73
    2.1 Adequacy of Curriculum Objectives 73
    2.2 Adequacy of Course Content 75
    2.3 Meeting Course Objectives 77
    2.4 Appropriateness of Curricula 79
    2.5 Provision for Differing Intellectual Abilities 81
    2.6 Provision for Individual Differences: Miscellaneous . 83
    2.7 Development of Skills and Abilities 84
    2.8 Curriculum and Student Needs (Curriculum Modifications) 86
    2.9 Curriculum and Local Needs 87
    2.10 Adequacy of Learning Materials 89
    2.11 Payment for Learning Materials 92
3. TEACHERS 93
    3.1 Familiarity with Teaching Methods 93
    3.2 Familiarity of Teachers with the Curriculum 94
4. STUDENTS AND THE CURRICULUM 96
    4.1 Student Admission Criteria 96
    4.2 Adequacy of the Guidance Program 98
    4.3 Student Assessment 101
        4.3.1 Preparation of Examinations 101
        4.3.2 Assignment of Student Grades 101
        4.3.3 Source of Pass/Fail Decisions 102
    4.4 Reporting Student Marks to Parents 103
    4.5 Drop-outs 104
        4.5.1 Number of Drop-outs, by Reasons (Principals' perceptions) .104

Page

4.5.2 Teachers' Perceptions of Reasons for Drop-outs 106

4.5.3 Parents' or Guardians' Experience with Drop-outs from Their Homes 107

4.6 Student Transfers 108

5. SUMMARY COMMENTS 109

CHAPTER FOUR: FINDINGS: ORGANIZATION AND ADMINISTRATION 112

1. SCHOOL ORGANIZATION 112

1.1 School Organization 112

1.1.1 Lower Secondary level 113

1.1.2 Upper Secondary level 113

2. ASSIGNMENT OF TEACHING STAFF 117

3. ADMINISTRATION OF THE INSTRUCTIONAL PROGRAM 119

3.1 Hours of Operation of Schools 119

3.2 Scheduling (Timetabling) the School 120

3.2.1 General Procedure for Timetabling 120

3.2.2 Other Practices 121

(a) Planning Stage 121

(b) Course Selection Stage 122

(c) Student Grouping 122

(d) Constructing the Timetable 122

3.2.3 Comparison with Recommendations in the Deane Report (1971) 122

3.3 Supervision of the Instructional Program 124

3.4 Staff Development 128

Page

3.5 Training Effectiveness 131

3.6 In-service Training Needs 132

3.7 Adequacy of In-service Training 134

4. THE DECISION-MAKING PROCESS 136

4.1 Involvement in Decision-Making in the School 136

4.2 Staff Meetings and Councils 137

4.3 Community Involvement 137

5. COMMUNICATION AND SCHOOL-COMMUNITY RELATIONS 137

5.1 Communication within the School and with the Community 137

5.2 Liaison with the Department of General Education . . . 139

5.3 Adult Education 139

5.4 Meeting the Needs of the Local Community 139

6. EFFECTIVENESS OF TEACHERS, ADMINISTRATORS AND PROJECT IMPLEMENTATION 140

6.1 RSS Project Implementation 140

6.2 Effectiveness of Selected School Services and Policies 141

6.3 Administrative Effectiveness 144

6.4 Effectiveness of Teachers 147

7. DISCIPLINE, ATTITUDES AND SCHOOL ATMOSPHERE 150

7.1 School Discipline 150

7.2 Students' Attitudes 152

7.3 General School Atmosphere 153

7.4 Teacher's Job Satisfaction 155

8. SUMMARY COMMENTS 155

Page

CHAPTER FIVE: FINDINGS: PHYSICAL FACILITIES AND FINANCIAL MANAGEMENT 157

1. PHYSICAL FACILITIES 157
    1.1 Availability of Physical Facilities 157
    1.2 Adequacy of Facilities 165
    1.3 Adequacy of Equipment, Supplies and Furniture 167
    1.4 Utilization of Specialized Facilities 169
        1.4.1 Utilization of the Seats Available 169
        1.4.2 Utilization of the Periods Available 169
    1.5 Comments on Physical Facilities in the Schools 172
2. SCHOOL FINANCE 172
    2.1 School Revenues 173
    2.2 School Fees 174
    2.3 Expenditures 177
        2.3.1 Capital Expenditures 177
        2.3.2 Recurrent (Operating) Expenditures 178
3. MANAGEMENT OF SCHOOL FINANCES 181
    3.1 Personnel in Charge of Finance and Budgeting 182
    3.2 Control of Expenditures 182
    3.3 Audit Procedures, Internal 183
    3.4 Audit Procedures, External 184
    3.5 Reporting 184
    3.6 School Budget 185
    3.7 Comments and Recommendations from Principals 186
    3.8 Observations on the Management of School Finances 186
4. SUMMARY COMMENTS 187

Page

CHAPTER SIX: FINDINGS: OUTCOMES OF THE R.S.S. PROJECT 191

1. EXTENT OF ACHIEVEMENT OF GENERAL OBJECTIVES OF THE RSS SCHOOLS 191

1.1 General Objective #1: To upgrade the quality of secondary schools in provincial towns and rural districts to a level that is competitive with the best schools in the Bangkok-Thonburi area 192

1.2 General Objective #2: To provide students with specific programs so as to meet the aptitudes and abilities of each individual student 193

1.3 General Objective #3: To satisfy the economic and social demands of the country in consonance with the Third National Economic and Social Development Plan (1975 - 1979) 194

2. EXTENT OF ACHIEVEMENT OF SPECIFIC OBJECTIVES OF THE RSS SCHOOLS 196

2.1 Specific Objective #1: To provide a more flexible and diversified curriculum 196

2.2 Specific Objective #2: To provide needed facilities (e.g. buildings, furniture) for each school 197

2.3 Specific Objective #3: To assign qualified teachers to carry out the learning and teaching activities . . . 198

2.4 Specific Objective #4: To provide equipment, supplies and teaching aids in order to facilitate effective learning 199

2.5 Specific Objective #5: To provide a supervision and training program for teachers 200

3. CAREER PREPARATION FOR MS 3 GRADUATES 202

4. FUTURE EDUCATION AND CAREER PLANS 203

4.1 Future Education and Post-High School Plans 203

4.2 Future Career Plans 206

5. EQUALITY OF EDUCATIONAL OPPORTUNITY 209

6. SATISFACTION WITH SCHOOL 213

Page

7. SCHOOL RATING 213
8. COMPARISON WITH LOCAL SCHOOLS AND SCHOOLS IN BANGKOK 217
9. SUCCESS IN PROMOTING NATIONAL UNITY 218
10. TEN BEST FEATURES OF THE RSS SCHOOLS 220
11. TEN WORST FEATURES OF THE RSS SCHOOLS 220
12. NEEDED SCHOOL CHANGES 224
13. STUDENT ACHIEVEMENT 227
14. ESTIMATED COST PER STUDENT IN RSS SCHOOLS 231
15. STUDENT FOLLOW-UP 232
16. THE UNIVERSITY OF ALBERTA TRAINING PROGRAM 237
17. SUMMARY COMMENTS 239

CHAPTER SEVEN: INTERVIEWS WITH MINISTRY OF EDUCATION PERSONNEL IN THE MINISTRY OF EDUCATION, BANGKOK 242

1. QUESTION 1: Why was the Ministry's perception of the need for the RSS Curriculum compared with the CSS (CIDA) schools' curriculum? 243
2. QUESTION 2: Why was a special unit needed in the Ministry of Education to implement the RSS Project? . . 244
3. QUESTION 3: What was the process used in developing the curriculum for the RSS Project? 244
4. QUESTION 4: How well was the RSS Curriculum implemented in the RSS schools? 247
5. QUESTION 5: In your opinion, is the RSS Project successful? 250
6. QUESTION 6: If you were involved in implementing the RSS Project again, what would you do differently? . 251
7. QUESTION 7: In your opinion, what are the trends in secondary education in Thailand? 252

8. QUESTION 8: What are the future needs of the RSS and other government secondary schools in Thailand? 253

9. SUMMARY COMMENTS 254

CHAPTER EIGHT: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS 257

1. SUMMARY: RATIONALE AND DESIGN 257

1.1 Rationale 257

1.2 Phases of the Assessment 258

1.3 Assessment (Evaluation) Models 259

1.4 Samples: Schools and Individuals 259

1.5 Instrumentation 260

1.6 Analysis 260

1.7 Reporting 261

1.8 Conclusions Concerning Design of the Assessment . . . 261

2. SUMMARY: FINDINGS AND CONCLUSIONS -- SPECIFIC OBJECTIVES . 261

2.1 Findings: Curriculum 261

2.2 Findings: Facilities for RSS Schools 263

2.3 Findings: Assignment of Qualified Teachers 265

2.4 Findings: Equipment, Supplies and Teaching Aids . . . 267

2.5 Findings: Supervision and Training Program for Teachers 268

2.6 Findings: Quality of the Administration of the Schools 270

2.7 Findings: RSS Schools and the Needs of Thailand . . . 274

2.8 Findings: Other Matters Affecting Schools, Ministry and Local Communities 276

Page

2.8.1 Curriculum Development 276

2.8.2 Evaluation of Student Achievement 276

2.8.3 Extra-curricular and Co-curricular Activities . . 277

2.8.4 Academic Emphasis 277

2.8.5 Payment for Learning Materials and Supplies . . . 277

2.8.6 Part-time Employment of Students 278

2.8.7 Program Articulation 278

2.8.8 Some Implementation Specifics 278

2.8.9 What Would You Do Differently in Another Project? 279

2.8.10 Response Patterns in the Assessment 279

2.8.11 Facets of the Co-operative Assessment Process . . 281

2.8.12 Reporting from Grouped Data 282

3. SUMMARY: FINDINGS AND CONCLUSIONS -- GENERAL OBJECTIVES . . 282

3.1 Reaching Targets of Development Credit Agreement #369 TH 282

3.2 Upgrading of Secondary Schools to the Bangkok-Thonburi Level 283

3.3 Provision of Special Programs to Meet Student Needs . . 284

3.4 Movement Towards Satisfying Economic and Social Demands of Thailand 285

4. GLOBAL CONCLUSION 286

5. RECOMMENDATIONS CONCERNING THE RSS PROJECT SCHOOLS 287

5.1 Recommendations Concerning Curriculum 287

5.2 Recommendations Concerning Organization and Administration 288

5.3 Recommendations Concerning Physical Plant 289

Page

5.4 Recommendations Concerning Financial Management . . . 290

5.5 Recommendations Concerning Evaluation 291

6. RECOMMENDATIONS CONCERNING THE CONDUCTING OF A CO-OPERATIVE ASSESSMENT 292

REFERENCES 295

APPENDICES

A. Co-operative Assessment Project Thai Support Staff 296

B. List of Schools Visited by the Co-operative Assessment Team During Phases III to V of the Study 302

C. Index of Questionnaires and Interview Schedules 305

D. List of Supporting Documents Available to the Research Team 321

E. Enrolment Check of Government Secondary Schools, Academic Years 1977 and 1978 324

F. List of Nearby Government Secondary School Principals . . 326

G. Ministry of Education Regulations Concerning Student Evaluation for the Various Curricula in Use in Government Secondary Schools in 1980 328

H. Analysis of the Varied Patterns of School Organization . . 332

I. "Timetabling in Comprehensive Schools," Deane Report, (1971) 341

J. Comparison of Planned and Actual Areas in Five Phase III RSS Project Schools 347

K. Implementation Schedule 354

L. Distribution of Secondary School Fee Rates in 1977 for the 1960 Lower Secondary Curriculum 356

M. Participants in The University of Alberta Training Program (September, 1975 to May, 1977) 360

* * * * * * * * * * * * *

LIST OF TABLES

Table Page

1 Identifying Data for the 32 RSS Project Schools 12

2 Thirty-two RSS Project Schools by Sampling Criteria 13

3 Summary of School Sample by Selection Criteria 14

4 Sixteen Sample Schools by Basic Identifying Data 15

5 Summary of Samples by Group and Type of Instrumentation 18

6 Teacher and Student Populations in Sample Schools 26

7 Potential and Actual Enrolments of M1, MS 3 and MS 5 in All Government Secondary Schools in 1967 and 1978 28

8 Potential and Actual Enrolments of M1, MS 3 and MS 5 in All Private Secondary Schools in 1967 and 1978 30

9 Number of Students Reported by the Sample Schools to be Enrolled in Practical Arts Courses, by Grade, for the School Year 1979 31

10 Years of Service of Principals in Present School 32

11 Academic Qualifications of Principals in the Sixteen Sample Schools 33

12 Qualifications of Teaching Staff in the Sample Schools 35

13 Age of M1, MS 3 and MS 5 Students in Sample Schools 40

14 Students' Living Accomodation 41

15 Distance of Students from School 41

16 Source of Funding for Selected School Expenses 42

17 Part-time Employment of M1, MS 3 and MS 5 Students 43

18 Types of Part-time Employment of M1, MS 3 and MS 5 Students 44

Table Page

19 Ages of Parents and Alumni 45

20 Level of Education Attained by Parents and Alumni 46

21 Number of Children in Sample of Parents and Alumni Sending Children to School 47

22 Grade Level of Children of Parents and Alumni 48

23 Principals' Perception of Reasons for Choosing Practical Arts Electives, by Grade Level 51

24 Extent of Student Choice of Optional Courses 53

25 Reason for Not Being Able to Choose Optional Courses 54

26 Comparison of Class Time in Periods per Week, 1969 and 1978 Curricula 56

27 Percentages of Students Taking Only Academic Subjects, Academic Year 1979 57

28 Adequacy of Program Articulation 58

29 Program Strengths as Perceived by Principals, Teachers, Parents and Alumni 59

30 Needed Program Improvements as Seen by Principals and Teachers 60

31 Involvement of Teaching Staff in Curriculum Development 61

32 M1 Students' Rankings of Difficulty of School Subjects from "Most Difficult" to "Least Difficult" 63

33 MS 3 Students' Rankings of Difficulty of School Subjects from "Most Difficult" to "Least Difficult" 64

34 MS 5 Students' Rankings of Difficulty of School Subjects from "Most Difficult" to "Least Difficult" 66

35 Perceptions of Parents and Alumni of the Difficulty of Courses for Their Students 67

36 Perceptions of the Importance of Courses 69

37 Perceptions of M1, MS 3, MS 5 Students, Parents and Alumni of the 6 Most Important Courses 70

Table		Page
38	Co-curricular and Extra-curricular Activities in the Sixteen Sample Schools	72
39	Perceptions of Principals and Teachers Concerning Adequacy of Curriculum Objectives for 1969, 1978 and 1975 Curricula	74
40	Perceptions of Principals and Teachers Concerning Adequacy of Course Content for the 1969, 1978 and 1975 Curricula	76
41	Perceptions of Principals and Teachers of the Extent to Which Course Objectives Were Being Met in Their School	78
42	Perceptions of Principals and Teachers of the Appropriateness of the Curricula in Their Schools	80
43	Extent to Which the Curriculum Meets the Needs of Students of Differing Intellectual Abilities	82
44	Extent to Which the Schools Provided for Individual Differences: Miscellaneous	83
45	Development of Skills and Abilities for Further Education or Employment	85
46	Curriculum and Student Needs (Curriculum Modifications)	86
47	Curriculum and Local Needs	88
48	Perceptions of Principals, Teachers, M1, MS 3 and MS 5 Students, and of Parents and Alumni Concerning Adequacy of Learning Materials	90
49	Sources of Payment for Learning Materials	92
50	Staff's Familiarity With Teaching Methods	93
51	Familiarity of Teachers With Curriculum	95
52	Rank-ordering of Admission Practices Used in RSS Schools	97
53	Adequacy of the Guidance Program	100
54	Perceptions of Principals and Teachers Concerning Who Prepares Examinations	101

Table Page

55 Perceptions of Principals and Teachers Concerning Who Assigns Student Grades 102

56 Perceptions of Principals and Teachers Concerning the Source of Pass/Fail Decisions 103

57 Principals' Reports of the Number of Drop-outs in Their Schools, by Level and Reason 105

58 Number of Lower and Upper Government Secondary School Drop-outs, Bangkok and Nation-wide, School Year 1977 106

59 Perceptions of Teachers of Reasons for Drop-outs 107

60 Perceptions of Parents or Guardians Concerning the Reasons for Drop-outs of Children from Their Homes 108

61 Transfers of Students In and Out of Sample Schools 109

62 Number of Administrative, School Service and Teaching Staff Places, Lower Secondary Levels Schools 115

63 Number of Administrative, School Service and Teaching Staff Places, Upper Secondary Levels Schools 116

64 Assignment of Teaching Staff in the RSS Sample Schools 118

65 Hours of Operation of the 16 Sample RSS Schools 120

66 Rank-ordering of Supervision Practices 125

67 Methods of Program Supervision Reported by Principals 126

68 Rank-ordering of Methods Used to Improve Teaching 129

69 Methods Used to Improve Teaching Performance 130

70 Effectiveness of Three Types of In-service Training 132

71 In-service Training Needs Identified by Teachers 133

72 Perceived Adequacy of In-service Training 135

73 Involvement in Decision-Making in the School 136

74 Effectiveness of Communication 138

75 Extent of Meeting Needs of Local Community 140

Table		Page
76	Principals' and Teachers' Ratings of the Effectiveness of RSS Project Implementation	141
77	Effectiveness of Selected School Services and Policies	143
78	Administrative Effectiveness	144
79	Teachers' Comments on Administrative Effectiveness	146
80	Effectiveness of Teachers	149
81	Discipline in the School	151
82	Students' Attitudes	152
83	General School Atmosphere	154
84	"D" and "E" schools (Physical Facilities)	158
85	Actual Capital Costs of Civil Works for the RSS Project Schools	160
86	Distribution of Furniture and Equipment for RSS Project Schools	164
87	Adequacy of School Site, Buildings and Housing Units	166
88	Adequacy of Equipment, Supplies, Tools and Furniture	168
89	Utilization of Specialized Instructional Facilities	170
90	Summary of Utilization of Specialized Facilities by Periods per Week	171
91	Sources of School Revenue	173
92	Range of Fees Paid in RSS Schools, 1979 School Year	175
93	Perceptions of All Sample Groups of the Level of School Fees	176
94	Percentage of Responsibility of Capital Expenditures in RSS Schools	177
95	Values of Furniture and Equipment Installed at RSS Schools	179
96	Percentage of Responsibility for Recurrent Expenditures in RSS Schools	180

Table		Page
97	Recurrent Costs (not including teachers' salaries and wages before implementation)	181
98	Extent to Which the Objective of Upgrading the Quality of Schools Was Being Achieved in the RSS Schools	193
99	Extent to Which the Objective of Providing Special Programs for Students Was Being Achieved in the RSS Schools	194
100	Extent to Which the Objective of Satisfying the Country's Economic and Social Demands Has Been Achieved in the RSS Schools	195
101	Extent to Which the Objective of Providing a Diversified Curriculum Was Being Achieved in the RSS Schools	197
102	Extent to Which the Objective of Providing Needed Facilities Was Being Achieved in the RSS Schools	198
103	Extent to Which the Objective of Assigning Qualified Teachers to the RSS Schools Was Being Achieved	199
104	Extent to Which the Objective of Providing Equipment, Supplies and Teaching Aids Has Been Achieved in the RSS Schools	200
105	Extent to Which the Objective of Providing a Supervision and Training Program for Teachers Was Achieved in the RSS Schools	201
106	Career Preparation for MS 3 Students Compared With Five Years Ago	202
107	Students' Plans for Highest Grade Completion	203
108	Students' Post-Secondary Plans	204
109	Students' Post-Secondary Institution Preferences	205
110	Future Career Plans of M1 Students	206
111	Future Career Plans of MS 3 and MS 5 Students	208
112	Persons Who Influenced Career Choice	209
113	Equality of Educational Opportunity	210
114	Equality of Educational Opportunity for Students of Different Socio-economic and Cultural Backgrounds	211

Table		Page
115	Satisfaction with RSS School	214
116	School Rating	216
117	Comparison of RSS Schools with Other Provincial Non-Project Government Secondary Schools and With Average Bangkok Government Secondary Schools	218
118	Success in Promoting National Unity and Common Identity	219
119	Ten Best Features of the RSS Schools	221
120	Ten Worst Features of the RSS Schools	223
121	Rank-Ordering of Perceptions of Needed School Changes	225
122	Results of M1, MS 1 and MS 4 Entrance Examinations in 16 RSS Schools	228
123	Results of Final Examinations, Lower Secondary Level and MS 5 (in 1974, 1975) in 16 RSS Project Schools, 1974 - 1978	229
124	Achievement of Students in Government Secondary Schools	230
125	Estimates by Principals of Post-Secondary Activities of MS 3 Graduates of the 16 Sample Schools, 1974 - 1978	234
126	Estimates by Principals of Post-School Activities of MS 5 Graduates of the 16 Sample Schools, 1974 - 1979	236
127	Summary of Responses to Question 1 in Interviews with Ministry of Education Personnel, Ministry of Education, Bangkok	243
128	Summary of Responses to Question 2 in Interviews with Ministry of Education Personnel, Ministry of Education, Bangkok	244
129	Summary of Responses to Question 5 in Interviews with Ministry of Education Personnel, Ministry of Education, Bangkok	250
130	Summary of Responses to Question 6 in Interviews with Ministry of Education Personnel, Ministry of Education, Bangkok	251

Table		Page
131	Summary of Responses to Question 7 in Interviews with Ministry of Education Personnel, Ministry of Education, Bangkok	252
132	Summary of Responses to Question 8 in Interviews with Ministry of Education Personnel, Ministry of Education, Bangkok	253
133	Index of Questionnaire and Interview Schedule Items	306
134	Enrolment Check of Government Secondary Schools, Academic Year, 1977 - 1978	325
135	Basic and Additional Components in the Organization of the Sample Schools	334
136	Sample Functions of Basic Components of the School's Organization	335
137	Summary of Planned and Actual Areas of Construction for Five Phase III Schools	348
138	Planned and Actual Area and Costing, Srisongrak Wittaya	349
139	Planned and Actual Area and Costing, Rahtborika-Nukroh	350
140	Planned and Actual Area and Costing, Yangtalad Wittayakarn	351
141	Planned and Actual Area and Costing, Phon-thong Pattana Wittaya	352
142	Planned and Actual Area and Costing, Prasart Wittayakarn	353
143	Distribution of Secondary School Fee Rates in 1977 for the 1960 Lower Secondary Curriculum	359
144	Participants in Thailand Project II, The University of Alberta, September, 1975 - May, 1977	361

* * * * * * * * * * * *

LIST OF APPENDICES

APPENDIX Page

A Co-operative Assessment Project Thai Support Staff 296

B List of Schools Visited by the Co-operative Assessment Team During Phases III to V of the Study 302

C Index of Questionnaires and Interview Schedules 305

D List of Supporting Documents Available to the Research Team 321

E Enrolment Check of Government Secondary Schools, Academic Years 1977 and 1978 324

F List of Nearby Government Secondary School Principals 326

G Ministry of Education Regulations Concerning Student Evaluation for the Various Curricula in Use in Government Secondary Schools in 1980 328

H Analysis of the Varied Patterns of School Organization 332

I "Timetabling in Comprehensive Schools," Deane Report, (1971) 341

J Comparison of Planned and Actual Areas in Five Phase III RSS Project Schools 347

K Implementation Schedule 354

L Distribution of Secondary School Fee Rates in 1977 for the 1960 Lower Secondary Curriculum 356

M Participants in The University of Alberta Training Program (September, 1975 to May, 1977) 360

* * * * * * * * * * * *

LIST OF FIGURES

FIGURE		Page
1	Location of the RSS Project Schools	xxix
2	Implementation Schedule -- RSS Project	355

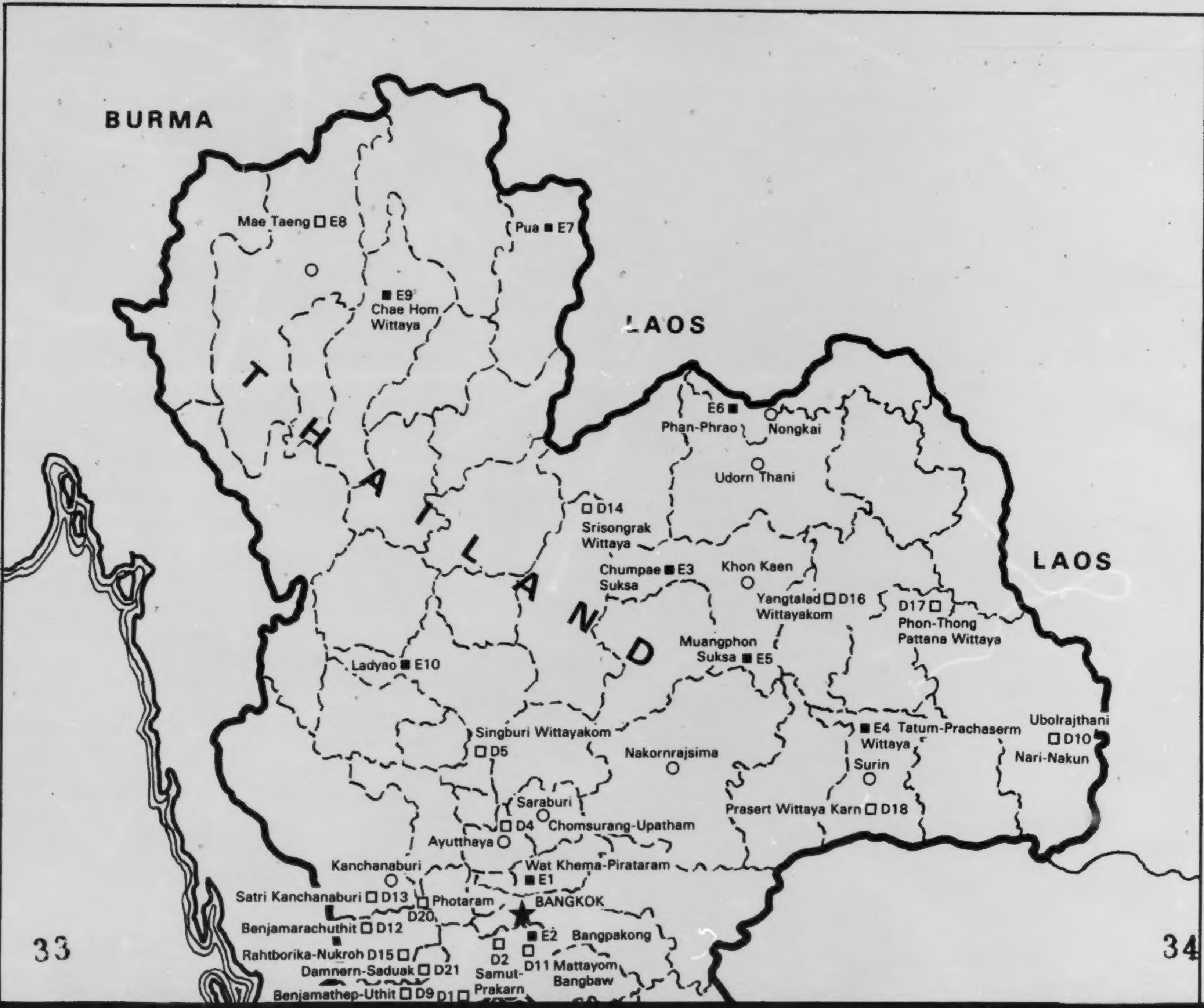


FIGURE 1 Location of the RSS Project Schools

CHAPTER ONE

THE CO-OPERATIVE ASSESSMENT PROJECT

1. BACKGROUND

The Rural Secondary Schools Project is a longitudinal outgrowth of a process of study and revision of the secondary education system in Thailand, beginning with the Orata-Sargent UNESCO study of 1949. That study recommended the establishment of comprehensive secondary schools. A pilot comprehensive school (Suranaree) was established at Nakhon Ratchasima (Korat) in 1960.

The year 1960 also marked the announcement of the "National Education Scheme, 1960." At that time the grade organization of Thai schools was the 7-3-2 type -- seven years of primary education, three years of Lower Secondary education, and two years of Upper Secondary education. Lower Secondary grades were known as Matayom Suksa (MS) 1, 2 and 3. Upper Secondary grades were MS 4 and 5. The first comprehensive school, Suranaree, used its own unique comprehensive curriculum, divided into MS 1 - 3, MS 4 - 5 and MS 4 - 6. This was the only Department of Secondary or General Education School ever to offer MS 6. Suranaree was considered successful.

As a result of the success of Suranaree, a further twenty schools became part of the "Comprehensive School Project," which commenced in 1966 with assistance from Canadian International Development Agency. The "CIDA Schools" as they have become known, used the 1967 Comprehensive Curriculum, which abolished "streams" and replaced them with the offering of a variety of courses open to grouping by abilities, interests and aptitudes. The unit system was established, replacing the full year pass/fail policy in effect up to that time. Subjects were assigned credits, and promotion was by subject rather than by year. The twenty

35-36-37

CIDA Schools offered Lower Secondary grades only (MS 1, 2 and 3) the equivalent of grades 8, 9 and 10 in North American practice. These twenty schools were considered successful, and led to the government policy of diversification of the curriculum for all secondary schools.

In 1969, a revision of the 1967 Curriculum occurred, reducing the fragmentation of the offerings in the school by the elimination of many small courses and the grouping of term courses into one-year courses.

The CIDA Project was followed by the Rural Secondary Schools (RSS) Project, involving 32 rural secondary schools in all parts of Thailand. These are the schools under study in this report. Because Thailand could not afford to build, equip and operate fully comprehensive secondary schools, external aid from the World Bank was obtained to build and equip the RSS schools. To save money, the 1969 Curriculum was offered on a limited scale, as far as physical facilities and electives were concerned.

In 1975, a revision of the Upper Secondary Curriculum (MS 4 and MS 5) was implemented for all schools in Thailand, including the RSS Project schools. In 1977 a new National Educational Scheme was promulgated for all schools. Under this scheme the grades were reorganized on a 6-3-3 basis rather than on the former 7-3-2 plan. Primary school became six years; Lower Secondary, three years; and Upper Secondary, three years. The secondary school grades were re-named with the title Maw "(M)" to distinguish them from the former organization and label, "MS". The old grade organization was phased out in a process beginning in 1978, which replaced the former "MS" grades one year at a time with "M" grades. The process will be completed by 1983, when M6 replaces MS 5.

In 1978 there was a revision of the Lower Secondary curriculum for MS 1 - 3, for all schools. This new Lower Secondary curriculum included a component of four hours per week of Work Education.

In summary, then the various curriculum changes for secondary schools in Thailand since 1960 were the following:

1960 General Secondary Curriculum for all schools for MS 1 - 3 and MS 4 - 5. Promotion was by a percentage grade on the year's work.

1960 Suranaree Comprehensive Curriculum (for Suranaree only), for MS 1 - 3, MS 4 - 5, and MS 4 - 6. Promotion was by a percentage grade on the year's work.

1967 Comprehensive Curriculum for all CIDA schools, for MS 1 - 3. Promotion was by units (subjects with credits).

1969 Revised Comprehensive Curriculum, for CIDA, associated comprehensive, Rural Secondary (RSS), and Diversified Secondary (DSS) schools. This curriculum was for MS 1 - 3 only. For MS 4 - 5 these schools used a modified form of the 1960 General Secondary Curriculum. Promotion was by units.

1975 Upper Secondary Curriculum for all secondary schools in Thailand. Promotion was by units.

1978 Lower Secondary Curriculum for all secondary schools in Thailand, but the RSS and DSS schools used the 1969 Practical Arts portion with the new 1978 structure. Promotion was by units.

For the 32 RSS schools under study in this Co-operative Assessment, the operational years were 1978 and 1979 for data collection and analysis. For reference purposes in analyzing the data, then, the curricula in effect at the various levels in 1978 and 1979 in the RSS Project Schools are outlined below:

Curricula Used in RSS Schools in the 1978 School Year

M 1	1978 Lower Secondary Curriculum, with Practical Arts from the 1969 curriculum
MS 1 - 3	1969 Comprehensive curriculum
MS 4 - 5	1975 Upper Secondary curriculum

Curricula Used in RSS Schools in the 1979 School Year

M 1 and M2 . . .	1978 Lower Secondary Curriculum with 1969 Practical Arts
MS 2 - 3	1969 Comprehensive curriculum
MS 4 - 5	1975 Upper Secondary curriculum

In terms of elective courses, in the 1969 Curriculum there were 8 periods of electives and 27 periods of compulsory courses per week, including English. In the 1975 Curriculum, there were 6 periods of electives, including English, and 29 periods of compulsory courses per week. English is widely available in the RSS Project schools, partly because there is a ready supply of English teachers, and a lack of facilities to offer some other electives. Many students choose English as an elective because they want to equip themselves for Upper Secondary grades where English is again a compulsory course, and for Higher Education where English is one of the entrance requirements.

With respect to training for school administrators in the RSS Project schools, The University of Alberta in Edmonton, Canada, provided short-term intensive training for Principals, Assistant Principals, or Senior teachers. The program, approximately four months in length, was implemented by the Department of Educational Administration of the Faculty of Education, The University of Alberta, between September, 1975 and May, 1977. Sixty-four participants received the training and completed the requirements for the Certificate of the Faculty of Education in the Philosophy and Administration of Comprehensive High Schools. (The University of Alberta had previously offered the training program for administrators, teachers and supervisors in the twenty-school CIDA Project).

Evaluation of the RSS Project had been discussed as early as 1975 on an informal basis. Eventually, after lengthy negotiation, The University of Alberta was contracted by the Thai Ministry of Education and the World Bank to conduct an evaluation of the impact and effectiveness of the 32 RSS schools. This evaluation became known as the "Co-operative Assessment Project."

2. RATIONALE FOR THE ASSESSMENT

The rationale underlying the Co-operative Assessment has three elements: (1) obtaining a measure of the extent to which the RSS Project schools were reaching their objectives, (2) obtaining data to support the amount of time, money and effort spent in diversifying the curriculum in the schools, and (3) obtaining valid and reliable data to aid in future decision-making concerning diversification of the curriculum in all Thai government secondary schools.

3. OBJECTIVES OF THE ASSESSMENT

The stated objectives of the Assessment were divided into two groups -- General Objectives and Specific Objectives. From the General Objectives were derived the topic areas for study. From the Specific Objectives were derived the specific items for inclusion in questionnaires, interview schedules, and Ministry interviews. These General and Specific Objectives, as set forth in the Detailed Proposal (1978:18 - 19) were:

3.1 General Objectives

The "Program for the Improvement of Rural Secondary Schools" (Ministry of Education, 1973:2, 3) stated the general and specific objectives of the Project for the 32 schools in question. From these statements, and the Development Credit Agreement (IDA, 1973) #369 TH, it can be said that the general objectives of the Co-operative Assessment were to appraise:

3.1.1 The movement towards the implementation of the targets of the Development Credit Agreement #369 TH (Rural Secondary Schools Component) between Thailand and the International Development Association, dated April 11, 1973.

3.1.2 The degree of upgrading of secondary schools in provincial towns and rural districts to the level that is competitive with the best schools in Bangkok and Thonburi area.

3.1.3 The degree to which the schools provide students special programs so as to meet the aptitudes and abilities of each individual.

3.1.4 The movement towards satisfying the economic and social demands of the country in consonance with the Third National Economic and Social Development Plan.

3.2 Specific Objectives

The Specific Objectives of the Co-operative Assessment were based in part upon the statement of specific objectives of the Rural Secondary Schools Project (Ministry of Education, 1973:3, 4), the statement of Expected Outcomes, and in part upon the experience of The University of Alberta study team. The Specific Objectives of the Assessment may thus be said to have been to appraise:

3.2.1 The provision of a more flexible and diversified curriculum;

3.2.2 The provision of needed facilities for each school;

3.2.3 The assignment of qualified teachers to carry out the learning and teaching activities;

3.2.4 The furnishing of equipment, supplies and teaching aids in order to facilitiate effective learning;

3.2.5 The provision of a supervision and training program for teachers;

3.2.6 The quality of the administration of the schools;

3.2.7 The satisfaction of administrators, teachers, pupils, parents, alumni and Ministry officials with the schools in helping to meet the social and economic needs of Thailand;

3.2.8 Such other matters as may affect the schools, the Ministry and the local communities as a result of the RSS program.

4. THE ASSESSMENT PROCESS

The development and implementation of the Co-operative Assessment Project had eight identifiable stages:

4.1 Negotiation

Serious discussion between The University of Alberta and Thailand of the possibility of conducting an Assessment began in 1976. Correspondence was initiated in 1977, and a "Reconnaissance Team" visited Thailand in 1978.

4.2 Reconnaissance Mission (July, 1978)

A team of six senior Canadian educators, representing The University of Alberta, the Alberta Department (Ministry) of Education, and two large school systems in Alberta, spent almost two weeks in Bangkok and other centres in July, 1978, to discuss the feasibility of an evaluation of the RSS Project schools. Members of the Mission were: Dean Walter H. Worth, Faculty of Education, The University of Alberta; Earle Hawkesworth, Deputy Minister, Alberta Education; Mr. M.A. Strembitsky, Superintendent and Secretary-Treasurer, Edmonton Public Schools; Dr. H.A. MacNeil, Superintendent, Edmonton Catholic Schools; Mr. William C. McCarthy, Field Co-ordinator, Thailand Projects II and III, The University of Alberta; and Dr. L.R. Gue, Director, Thailand Projects, The University of Alberta. Agreement was reached in principle that The University of Alberta should conduct an evaluation or "Co-operative Assessment" of the RSS Project in accordance with the "Tentative Proposal" produced by the group during its mission.

4.3 Detailed Proposal (August - September, 1978)

The Tentative Proposal produced by the Reconnaissance Mission team was accepted by the World Bank early in August, 1978. Dr. L.R. Gue then developed the "Detailed Proposal" which was accepted by the Thai Ministry of Education and the World Bank early in October, 1978. In December, 1978, formal letters of understanding were exchanged between The University of Alberta and the Department of General Education of Thailand that the Assessment should be conducted as outlined in the Detailed Proposal.

4.4 Basic Planning and Pre-Testing (January - February, 1979)

A team of four Thai and four Canadian educators selected the samples and pre-tested the questionnaires and interview schedules used in the

Assessment. On the Thai side, the team consisted of the following persons from the Department of General Education, Ministry of Education: Dr. Ruang Chareonchai, Deputy Director-General; Dr. Sawat Udompoch, Deputy, Office of Special Projects; Dr. Wanlop Kansup, Head, Evaluation Section, Planning Division; Mrs. Jitsai Padungrat, Office of Special Projects. Canadian members of the team were: Dr. L.R. Gue, Director, Thailand Projects, The University of Alberta; Mr. W.C. McCarthy, Field Co-ordinator, Thailand Projects, The University of Alberta; Dr. Thomas A. Blowers, Director, Research, Edmonton Public Schools; Dr. M. Kuefler, Assistant Principal, O'Leary High School, Edmonton. This team developed the questionnaires and interview schedules used in the study, then evaluated and pilot-tested them in three non-Project schools. Five questionnaires and five interview schedules were thus developed and pre-tested. As a result of the pre-testing, some small changes were made in the instruments. Dr. Gue and staff produced in Alberta the final copies of the instruments, in English. These were mailed to Thailand early in May, 1979, for translation into Thai (except for the Principal's Questionnaire) and distribution to the sample schools. A list of Thai support staff will be found in Appendix A.

4.5 Data Collection (July - August, 1979)

A team of three Thai and three Canadian Associates collected the data for the study during the months of July and August, 1979. The team, composed of Dr. Sawat Udompoch (part-time), Dr. Wanlop Kansup, Mrs. Jitsai Padungrat, Dr. L.R. Gue, Dr. T.A. Blowers, and Mr. W.C. McCarthy, visited the eight schools chosen as a sub-sample for site-visits, and some other schools (see Appendix B). During these visits the team collected any instruments not yet sent to Bangkok, interviewed a sample of persons involved with the operation of schools, toured the schools, and took photographs. Coding of the data from the instruments was done by a team of administrators and teachers under the direction of Mr. Manoon Kanjanapakde and Mrs. Yupin Sinturawet. Interviews with Ministry personnel were conducted chiefly by Dr. L.R. Gue, with Dr. T.A. Blowers participating from time to time. For the purpose of obtaining some perspective, in late August Dr. Gue and Dr. Blowers visited two secondary schools in Bangkok -- Stree Wittaya and Suankarlab Wittayalai. No data from these schools are included in this Assessment report, as they were not part of the sample.

4.6 Data Analysis (September - November, 1979)

The Office of Special Projects of the Department of General Education mailed to The University of Alberta all Questionnaire Code Sheets, Interview Schedules and Principals' Questionnaires, together with considerable supporting data. Computer analysis of the numerical data was performed on the Amdahl computer of The University of Alberta. Mrs. Christiane Prokop of the Department of Educational Administration of The University of Alberta developed the coding scheme and programmed the data for processing. Tests of significance of difference of means were conducted between all samples, using the t-test for two-sample cases, and F test for multiple comparisons.

4.7 Interpretation-Review (December, 1979)

The Interim Report of the study was reviewed in depth in Chiengmai, Thailand, from December 6 - 11, 1979. Reviewers were Dr. Ruang Chareonchai, Dr. Sawat Udompoch, Dr. Wanlop Kansup, Mrs. Jitsai Padungrat, Dr. Sen Keoyote, Dr. Duangtip Somnapan, Dr. Frank Vivio (East-West Center, Honolulu, Hawaii), Dr. Leonard Berggren, (World Bank), and Dr. L.R. Gue. The purpose of the review was to ensure that the report presented an accurate, balanced and reasonable interpretation of the data.

4.8 Final Report (December, 1979 - March, 1980)

The Final Report was prepared by Dr. L.R. Gue at The University of Alberta in Edmonton during the last part of December, 197[illegible] and the months of January to March, 1980. The study was reported in three forms: (1) Final Report, (2) Summary Report, and (3) Executive Summary.

The analysis of the Assessment, by Dr. Kenneth King of the International Development Research Centre, Canada, was prepared after the completion of the Final Report, and is a separate document.

5. DESIGN OF THE CO-OPERATIVE ASSESSMENT

5.1 Evaluation

The design of the Co-operative Assessment followed the models postulated by Stufflebeam (1971), and Metfessel and Michael (1967).

Stufflebeam et al propose an evaluation model comprised of four major components: Context, Input, Process and Product. The instrumentation for the assessment used these components as a base. In terms of specific topic areas, and items, the suggestions of Metfessel and Michael were thoroughly scrutinized by the Thai-Canadian team at the Reconnaissance Mission stage, and a selection made of the facets of school operation appropriate to the Thai setting for government secondary schools.

In terms of the "Output" facet of the evaluation model, a delimitation in this study was that little data were presented on student achievement because the RSS Project schools have been in operation as diversified schools for such a short time. The evaluation in this study must be considered formative, not summative.

5.2 Samples: Schools

The numbers of schools and individuals involved in a formative assessment of the RSS Project was so large that it was necessary to choose samples of schools and individuals for conducting the Assessment. A description of the sampling process follows.

5.2.1 Sample Schools

In the Detailed Proposal (1968:25), it was stated that the sample schools would be drawn from the major geographical regions of Thailand, by type and size of school. Two more criteria for sample selection were agreed upon during the Basic Planning phase of the study -- level of education offered by the school, and Phase of the school in the four years of the RSS Project implementation. A purposive sample was therefore drawn from the 32 schools in the Project, according to the following guidelines:

(a) Phase. The sample must include schools from each Phase of the RSS Project, commencing in the academic years as follows: Phase I -- 1974; Phase II -- 1975; Phase III -- 1976; Phase IV -- 1977.

(b) Geographic location. The sample must include schools from each of the four major geographic regions of Thailand -- North, North-east, Central and South.

(c) Level of education. The sample must include schools with both Lower and Upper Secondary levels of each in each geographic region.

(d) Size of school. Three sizes of schools must be included in the sample:

Small:	35 or fewer classes
Medium:	36 to 59 classes
Large:	60 classes or more

(e) Type of education. The sample must include schools from the three types in the Project: Boys' school, Girls' school, Co-educational school.

In terms of the total number of schools in the sample, it was decided that sixteen of the 32 schools would be representative and practicable with the funds and time available for the Assessment. Table 1, reproduced from the Detailed Proposal (1978:21 - 22), gives identifying data concerning the 32 schools in the RSS Project, by Proposal number. This was the basis for the sample selection.

Table 2 lists all thirty-two RSS schools according to the selection criteria and also shows by Proposal number the sixteen schools finally chosen as the sample schools for this study. (It should be noted at this point that the sample schools were re-numbered from 1 to 16 for clarity in data processing. The new numbering appears in this report after Table 2).

It will be noted that the 16 schools chosen included all criteria for representativeness of the 32 schools in the Project. Further, it will be noted that a number of schools possess similar criterion measures, so that some selection was possible among these to ease the logistics of travelling time and expense. These similar schools were: #1, 15; #6, 16, 19; #5, 14; #10, 20, 22, 23.

Table 1

Identifying Data for the 32 RSS Project Schools

(Office of Special Projects Documentary Data)

Proposal Code Number	Name	Province	Type	Enrolment, 1972	No. of Teachers, 1972
1	Satri Nonthaburi	Nonthaburi	G. Co-ed.[1]	2,402	85
2	Wat Khema-pirataram	Nonthaburi	B. Co-ed.[2]	2,866	79
3	Samutprakan	Samutprakan	B. Co-ed.	1,178	54
4	Rayong Wittayakom	Rayong	Co-ed.	1,193	50
5	Bangpakong "Borworn Waittayakom"	Chacheongsao	Co-ed.	529	25
6	Chomsurang-Upatham	Phranakorn Sri-Ayutthaya	G. Co-ed.	1,085	35
7	Singburi	Singburi	B. Co-ed.	1,583	64
8	Surat-Thani	Surat-Thani	B. Co-ed.	884	39
9	Sriyaphai	Chumporn	B. Co-ed.	1,105	53
10	Chumpae Suksa	Khon Kaen	G. Co-ed.	468	14
11	Tung Song	Nakorn Sri-Thammarat	B.	694	21
12	Benjamrachuthit	Rajburi	B. Co-ed.	1,352	57
13	Nari-Nukun	Ubon-ratcha-Thani	G. Co-ed.	1,023	41
14	Mattayom Bangbaw	Samutprakan	Co-ed.	413	20
15	Benjamathep-Uthit	Phetburi	G. Co-ed.	1,263	58
16	Satri Kanchanaburi "Kanchananukroh"	Kanchanaburi	G.	691	24
17	Tatum-prachaserm Wittaya	Surin	Co-ed.	261	11
18	Srisongrak Wittaya	Loei	Co-ed.	310	6
19	Rahtborika-Nukroh	Rajburi	G. Co-ed.	820	34
20	Muangphon Pittayakom	Khon Kaen	Co-ed.	285	8
21	Pan Phrao	Nonghkai	Co-ed.	418	13
22	Yangtalad Wittaya-karn	Kalasin	Co-ed.	328	12
23	Phon-thong Pattana Wittaya	Roi-et	Co-ed.	371	10
24	Prasart Wittayakarn	Surin	Co-ed.	370	12
25	Pua	Nan	Co-ed.	358	11
26	Mae-tang	Chiengmai	Co-ed.	507	20
27	Chae-hom Wittaya	Lampang	Co-ed.	458	11
28	Ranode Wittaya	Songkhla	Co-ed.	630	23
29	Ladyao	Nakorn Sawan	Co-ed.	513	12
30	Photaram "Phota-wattanaseni"	Rajburi	Co-ed.	1,037	38
31	Hoiyod	Trang	Co-ed.	538	18
32	Damnern-saduak "Saithamachan"	Rajburi	Co-ed.	836	30
			TOTALS	26,769	988

---

[1] G. Co-ed.: Basically a girls' school, with a few boys' classes in upper secondary.

[2] B. Co-ed.: Basically a boys' school, with a few girls' classes in upper secondary.

Table 2

Thirty-two RSS Project Schools by Sampling Criteria

Phase	All Schools by Code No.[1]	Location[2]		Level[3]	Size[4]	Type of Education[5]	Final Sample Schools by Code No.[1]
			N				
Phase I	2, 3, 7	C	3	L - U	L	B	7
	8	S	1	L - U	L	B	8
	1	C	1	L - U	L	G	--
	6	C	1	L - U	M	G	--
	4	C	1	L - U	L	Co.	4
	5	C	1	L - U	S	Co.	5
Phase II	9, 11	S	2	L - U	M	B	9
	10	NE	1	L - U	M	Co.	--
	12	C	1	L - U	M	B	12
	13	NE	1	L - U	L	G	13
	14	C	1	L - U	S	Co.	--
	15	C	1	L - U	L	G	15
	16	C	1	L - U	M	G	--
Phase III	17, 24	NE	2	L - U	S	Co.	17
	18, 21	NE	2	L	S	Co.	21
	19	C	1	L - U	M	G	19
	20, 22, 23	NE	3	L - U	M	Co.	23
Phase IV	25	N	1	L - U	S	Co.	25
	26, 27	N	2	L	S	Co.	26
	28	S	1	L	S	Co.	28
	29	C	1	L	S	Co.	--
	30, 32	C	2	L - U	M	Co.	30
	31	S	1	L - U	S	Co.	--
		C = 15 S = 5 NE = 9 N = 3		L - U = 26 L = 6	S = 12 M = 12 L = 8	B = 7 G = 6 Co.= 19	
TOTAL	32	32		32	32	32	16

[1] Schools: Code numbers are those used in the Detailed Proposal.

[2] Location: N = North; NE = North-east; S = South; C = Central.

[3] Level: L = Lower secondary; U = Upper secondary.

[4] Size: L = Large; M = Medium; S = Small (see text).

[5] Type of Education: B = Boys' school; G = Girls' school; Co. = Co-educational school.

Table 3 gives a summary of the number of sample schools across selection criteria. Four were chosen from each Phase of Project implementation according to the remaining four criterion measures.

Table 3

Summary of School Sample by Selection Criteria

Phase	N	Location	N	Level	N	Size	N	Type	N
I	4	N	2	L-U	13	S	6	B	4
II	4	NE	4	L	3	M	5	G	3
III	4	S	3			L	5	Co.	9
IV	4	C	7						
Total	16		16		16		16		16

It will be seen that the sample included four schools from each of the four phases of the Project; two schools from the North, four from the North-east, three from the South, and seven from the Central region; thirteen schools offering both Lower and Upper Secondary grades, and three offering Lower Secondary only; six small, five medium and five large schools; four boys' schools, three girls' schools and nine co-educational schools. The sample included not less than two schools under each of the criteria for sample selection, and thus may be considered a sample representative of the 32 schools in the RSS Project.

Table 4 shows the sample schools by name, province, number of students (1978) and number of teachers (1978).

5.2.2 Selection of Schools for Site Visits. A sub-sample of eight schools which the research team would actually visit was selected from the 16 sample schools according to criteria of representativeness within the sample schools. The reduction of site-visits to eight was necessitated by considerations of cost, time, and accessibility for travel. All criteria of representativeness (phase, location, level, size, and type of school) were met in the site-visit sub-sample. The purpose of the site visits was to interview a sample of respondents, view the school in operation, and take selected photographs illustrating the site, buildings, and instructional program. Site visit schools are indicated by an asterisk opposite their listing in Table 4.

Table 4

Sixteen Sample Schools by Basic Identifying Data

Assessment Code Number	Name of School	Province	Region	No. of Teachers 1978	No. of Students 1978
01 *	Rayong Wittayakom	Rayong	C	168	2,899
02	Bangpakong Borwon Wittayakom	Chacheongsao	C	73	1,118
03 *	Singburi	Singburi	C	161	3,038
04	Surat Thani	Surat Thani	S	141	2,595
05 *	Sriyapai	Chumporn	S	135	2,571
06	Benjamarachutit	Rajburi	C	133	2,615
07	Nari Nakun	Ubon Ratchathani	NE	182	3,331
08	Benjamathep Uthit	Petburi	C	141	2,550
09	Tatum Prachaserm Wittaya	Surin	NE	74	1,325
10	Ratchborika Nukroh	Rajburi	C	150	2,400
11 *	Pan Phrao	Nongkhai	N	49	974
12 *	Phon Tong Pattana Wittaya	Roi-et	NE	89	1,478
13 *	Pua	Nan	N	72	1,292
14 *	Mae Tang	Chiengmai	N	48	836
15	Ranode Wittaya	Songkhla	S	73	1,347
16 *	Photaram "Phota Wattanaseni"	Rajburi	C	96	1,826
TOTAL				1,785	32,195

5.3 Samples: Individuals

The general principle undergirding the selection of the sample of individuals in the 16 schools for responses, either to questionnaires or interview schedules, was to ensure representativeness of all those involved in the school enterprise -- principals, teachers, students (at various levels), parents and alumni. In addition, the perceptions of sixteen principals of nearby schools were sought concerning the sixteen sample RSS schools. Considerations of the cost of producing, distributing and returning large numbers of questionnaires, together with the demands placed upon the time of the respondents, made it imperative to select quite stringently the sample of teacher and pupil populations in the sample schools.

5.3.1 Individuals Completing Questionnaires. Keeping the above-noted criteria and constraints in mind, the sample of individuals selected to complete questionnaires in sample and nearby schools became the following:

Principals	All sixteen
Teachers	All M1, MS 3 and MS 5 teachers
Students	One academic and one Practical Arts class in each of M1, MS 3 and MS 5 in each school, according to the principal's perception of representativeness of these classes
Parents and Alumni . . .	10 per sample school, according to principal's perception of representativeness
Principals of Nearby Schools	Sixteen principals of the government secondary schools nearest to the RSS sample schools

The above criteria were followed closely by the Ministry and school personnel involved in questionnaire sample selection.

5.3.2 Individuals for Interview. Selection of individuals to be interviewed in the schools was left to the discretion of the principals of the sample schools, but according to criteria established at a briefing meeting for principals, held in May, 1979. These criteria for selecting interview respondents were:

-- The total interview sample must include as wide a variety of respondents as possible, in terms of occupation, socio-economic status, and age.

-- The teacher sample must include: both sexes; experienced and new teachers; teachers meeting many groups of students; teachers who understood well the policies of the school.

-- The student sample must include: both sexes; academic students from the science-mathematics programs and the arts-language programs; vocational students; students of both high and moderate achievement.

-- The parent and alumni sample must include: both sexes; a variety of occupations and socio-economic statuses; persons with close contact with the school; and in the alumni sample, a variety of older and more recent graduates. Because of the fact that a number of the alumni were also parents, and vice versa, it was not practicable in reporting to separate these respondents into independent samples.

Selection of the interview sample of Ministry officials in Bangkok, was done by the Thai Associates in the Assessment. The general criterion was to select those who had had close contact with the RSS Project at various levels and in a variety of responsibilities. The final sample of Ministry personnel in Bangkok totalled seventeen.

In summary, the criteria established for the selection of interviewees were followed carefully, although there was one exception in which the student sample was selected at random rather than by grade level and program. Table 5 gives a summary of the sample, by instrumentation. A precise count of teachers according to grade level taught was difficult because a number of teachers taught in several grades and were identified more by subject area of teaching than by grade level. In general, it can be said that the sampling procedures established by the design of the study were adhered to by the persons responsible for identifying the respondents and making arrangements for their presence in the school at the time of interview.

Table 5

Summary of Samples by Group and Type of Instrumentation

Instrument	Principals	Teachers				Total	Students			Total	Parents and Alumni	Principals of Nearby Schools	Ministry Personnel, Bangkok	Total
		M1	MS 3	MS 5	Not Specific		M1	MS 3	MS 5					
Questionnaire	16	359	411	285	14	1069	1425	1429	1137	3991	183	16	--	5,275
Interview Schedule	8	(varied teaching assignments)			43	43	16	17	11	44	48	--	17	160
													TOTAL	5,435

5.4 Instrumentation

The instrumentation for the Assessment consisted of 6 questionnaires and 5 interview schedules for use in the schools, and an interview schedule for use with Ministry Personnel in Bangkok. The questionnaires and interview schedules for the schools contained many five-point rating scales (in which a rating of "1" was low, and "5", high), together with many opportunities for free responses. The Principal's Questionnaire was developed first, and contained the largest number of items. The remaining questionnaires and the interview schedules were basically derived from the Principal's Questionnaire.

All instruments except the Principal's Questionnaire and the Ministry Interview Schedule were translated into Thai by Assessment Project Thai staff, and later back-translated into English by bilingual Thai Ministry of Education staff who had not seen the original English version. Few errors were found in translating the intent of the English questions into Thai. The use of the Principal's Questionnaire in English was agreed upon at an in-service seminar in Thailand conducted by the Thai Associates in May, 1979. Dr. L.R. Gue developed the Ministry Interview Schedule, which was used by him in English during the interviews.

Interview schedules were taken to the schools by the data-collection team and completed there. The interviews were conducted with principals, a sample of M1, MS 3 and MS 5 teachers, of M1, MS 3 and MS 5 students, and of parents and alumni. Interviews were conducted almost exclusively in Thai, with the Canadian Associates present and occassionaly asking questions. Interview responses were recorded in English by the Thai Associates. One Canadian member of the team was fluent in Thai and was able to question in that language. The other two depended upon the bilingual proficiency of the Thai Associates for completion of the interviews.

The questionnaires and interview schedules were numbered and identified as follows:

Questionnaires

CAP 1 (P)	Principal's Questionnaire
CAP 2 (T)	Teacher's Questionnaire
CAP 3 (S) M1	Student's Questionnaire M1
CAP 3 (S) MS 3, 5	Student's Questionnaire MS 3, MS 5
CAP 4 (PA)	Parent's and Alumni Questionnaire
CAP 5 (PNS)	Principals of Nearby Schools' Questionnaire

Interview Schedules

PIS	Principal's Interview Schedule
TIS	Teacher's Interview Schedule
SIS (M1)	Student's Interview Schedule (M1)
SIS (MS 3, 5)	Student's Interview Schedule (MS 3, 5)
PAIS	Parent's and Alumni Interview Schedule
MIS	Ministry Interview Schedule

Originally, two forms of the interview schedules were produced, one for the interviewer and one for respondents, but after the first school the Respondent's form was dropped as being dysfunctional, and both interviewer and respondent used the same form. The respondent merely used the schedule as a visual reinforcement, and did not write upon it. A listing of questions which appeared on the questionnaires and interview schedules will be found in Appendix C.

5.5 Documentary Study

The Department of General Education and its Office of Special Projects provided the Assessment team with full documentary data for all aspects of the assessment, including such data as staffing, school population, financial statements, building plans and completions, and voluminous background documents on the RSS Project, its predecessor, the CIDA Project, and its successor, the DSS Project. A listing of the supporting documents available to the research team will be found in Appendix D.

5.6 Data Analysis

The data in this study were analyzed by simultaneous consideration of computer output of numerical data and summarization of the free responses obtained from questionnaires and interviews both in writing and verbally. Numerical data on questionnaires were coded in Thailand, key-punched, verified, transferred to disc, and run on the Amdahl computer of The University of Alberta in Edmonton. Tests of statistical significance between differences in means were run on interval-scale data where appropriate. In comparisons involving two independent samples, t-tests were used. For multiple comparisons of means, the F test was used. Comparisons were made between different sample groups, and also within items where the three curricula (1969, 1978 and 1975) were included in any one item. In this report, only those tests which showed statistical significance beyond the 0.05 level will be mentioned.

The data thus obtained from questionnaires and interview schedules were tabulated, analyzed and written up by academic staff employed or contracted by The Department of Educational Administration to perform the task. The team of analysts was Dr. L.R. Gue, Dr. T.A. Blowers, Mr. W.C. McCarthy, Mr. Michael Wodlinger, and Dr. Sen Keoyote from the Thai Ministry of Education. Dr. Sen was seconded to Edmonton for six weeks in October and November, 1979, to assist with the analysis.

6. SUMMARY COMMENTS

Chapter One has given the background and design of the Thai-Alberta Co-operative Assessment Project. The history of curriculum change and implementation was noted, commencing with the National Education Scheme of 1960 and the establishment of Suranaree Wittaya, the first comprehensive secondary school in Thailand, in that same year. Successive projects for the diversification of the curriculum in the schools were described briefly -- the 20-school CIDA Project, the 32-school RSS Project, and the 50-school DSS Project. The RSS Project was noted as the focus of this Assessment.

The various curriculum changes for secondary schools in Thailand were discussed, commencing with the 1960 General Secondary Curriculum and the 1960 Suranaree Comprehensive Curriculum. Following these were the 1967 Comprehensive Curriculum for Lower Secondary Schools and its 1969 revision, the 1975 Upper Secondary Curriculum and the 1978 revision of the Lower Secondary Curriculum.

The implementation of the short-term intensive training for 164 school administrators between 1975 and 1979 at The University of Alberta, Edmonton, Canada, was noted.

The rationale and objectives of the Co-operative Assessment were described, as were the eight phases of the study: Reconnaissance, Proposals, Basic Planning and Pre-testing, Data Collection, Analysis, Academic Review, Final Report and Analytical Review.

Concerning the assessment process itself, the evaluation models of Stufflebeam and Metfessel and Michael were noted briefly as the bases for the research design. Sampling procedures were described, both for the selection of the 16 schools to be studied out of the 32 schools in the RSS Project, and the selection of individuals asked to complete questionnaires and participate in interviews with the research team. The criteria used to ensure representativeness in all samples were discussed in detail. The construction of the six questionnaires and six interview schedules was outlined, together with the provisions for documentary study. Finally, the scheme of analysis of the data was noted including completion of coding of data in Thailand and conducting the remainder of the processing in Edmonton.

Probably the most significant aspect of Assessment process in this study was the total co-operation and parity between Thai and Canadian Associates. From the time of initial informal discussions in 1975 to the submission of the Final Report in 1980, Thai and Canadian associates met, discussed, and reached consensus on all phases of the research. Complete confidence and trust on all sides was evidenced in the production of proposals, the establishing of a contract, the exchange of information, and the provision for the logistics of day-to-day operations. A process of this nature is more time-consuming than unilaterial action, but the final product in the form of a report reaches a high level of credibility and usefulness. Not the least of the products is the valuable professional experience for all participants involved in such an extensive and intensive evaluation thrust.

* * * * * * * * * * * * *

CHAPTER TWO

EDUCATIONAL PROFILES IN THE RSS PROJECT

This chapter will describe the setting in which the Co-operative Assessment was planned and implemented. Findings will not be presented here, but rather, data which illuminate the actual situation and populations of the schools and their communities at the outset of the Assessment process. The purpose of this chapter, then, is to enable the reader of this report to interpret the findings of a 1979 Assessment in a realistic and appropriate manner for this time in education in Thailand.

The chapter will present the profiles under these headings, all in the RSS Project setting and schools: demographic data, principals, teachers, students, parents and alumni, principals of nearby schools.

1. DEMOGRAPHIC DATA

1.1 General Setting of the RSS Schools

Thailand is a tropical country with an area of 514,000 square kilometers (198,455 square miles) and an estimated population in 1979 of 44,000,000 people. It is approximately 1,610 kilometers (1,000 miles) from north to south, and 790 kilometers (490 miles) from east to west at the widest portion. The narrowest portion of Thailand, near Prachuab Kiri Khan is less than 25 kilometers wide. Thailand has four major regions, fairly clearly defined: North, North-east, Central, and South. The four regions vary considerably in terrain, rainfall, vegetation, natural resources, and socio-cultural characteristics. The country is divided into 71 provinces or "changwads," with further divisions into districts and sub-districts.

The data provided by the sample schools show the mean population of the provinces in which each of the sample schools is located, to be 647,082, with a low of 199,036 and a high of 1,490,963. The mean population of the districts in which each of the sample schools is located is 82,867, with a range from 23,950 to 194,154. The mean population of the sub-districts in which each of the sample schools is located is 24,956, ranging from a low of 6,290 to a high of 85,207.

The sample schools were located in all four major regions of Thailand -- North, North-east, South, and Central, and in fourteen provinces: Chiengmai, Nan, Ubon, Surin, Nongkhai, Roi-Et, Surat Thani, Chumporn, Songkhla, Rajburi, Petburi, Chacheongsao and Rayong.

1.2 Teacher and Student Populations in the RSS Schools

Table 6 summarizes staff and student data for each of the sixteen sample schools for the years 1977 to 1979 inclusive. A point of interest is the large increase in student population from 1977 to 1978 in some of the sample schools. For example, Bangpakong School showed an increase of 41% from 1977 to 1978. This phenomenon may be explained as follows:

> The school year 1978 saw the change in organization of the grades in the Thai school system from the 7-3-2 to the 6-3-3 plan. Thus there are now 6 years of elementary school, 3 years of Lower Secondary and 3 years of Upper Secondary. The number of secondary school students was increased heavily nationwide, with primary level graduates from P.7 and P.6 being promoted to secondary level grades of MS 1 and M1 respectively. However, most schools, having limited places, tried to keep down the number of students in the school to that of the previous year by dividing the places available for the first year of secondary level into two portions, one for MS 1 students and the other for M1 students. Consequently a large number of students failed to be admitted to government schools in general, while certain schools with low admission rates were able to admit more students. Bangpakong School was a case in point. In 1977 the school was able to admit only 244 MS 1 students; in 1978 it admitted 230 M1 students and 247 MS 1 students, for a total of 477. In 1979 there were only 186 M1 students, when the school had places for as many as 360 students. It can be concluded, therefore, that the phenomenal increase in the number

of students being admitted to that school in 1978 was due to those students being unable to enroll at other government schools.

The reason for the low enrolment rates at Bangpakong School may well be its location. The school is not very accessible due to the following factors:

1. its isolation from the community
2. lack of short-distance bus services. The school is on the main highway, but long-distance buses rarely stop in front of the school.
3. students living at some distance from the school find it more convenient to travel to schools in the provinces of Chacheongsao or Cholburi.

Sriyaphai School in Chumporn province showed an increase of 987 students between 1977 and 1978, but an increase of only 19 teachers. However, the student-teacher ratios in both Bangpakong and Sriyaphai must be considered in relation to national norms, as below:

	Pupil-teacher Ratios	
	1977	1978
Bangpakong	17.7 : 1	15.3 : 1
Sriyaphai	13.6 : 1	19.0 : 1
Nationwide	20.0 : 1	22.0 : 1

The ratios approved by Kuru Sapha, a quasi-official council for education, are 1:15 for the Upper Secondary level, and 1:17 for the Lower Secondary level.

Another interesting aspect of the school profile are the changes in support staff between 1977 and 1979. Rayong Wittayakom, in the province of Rayong, increased its support staff by five and maintained the increase in 1979. Singburi, situated in Singburi province, experienced a student population increase of 434 in 1978, and a support staff increase of six in 1978 over 1977, and seven in 1979. There are no student population figures for 1979. Benjamarchuthit, located in Rajburi province, lost three support staff in 1978 even though the student population increased by 563.

Table 6

Teacher and Student Populations in Sample Schools

	Administration			Support Staff			Teachers		
	1977	1978	1979	1977	1978	1979	1977	1978	1979
Rayong Wittayakom	4	4	4	9	9	9	122	148	148
Bangpakong	4	2	2	2	5	5	40	60[1]	61
Singburi	4	4	4	10	11	11	127	135	137
Surat-Thani	4	4	4	8	10	10	98	115	115
Sriyaphai	4	4	4	6	8	8	101	109	108
Benjamrachuthit	4	4	4	8	5	15	99	110	112
Nari-Nukun	4	4	4	9	14	14	135	143	157
Benjamathep-Uthit	3	4	4	5	8	8	104	120	121
Tatum Prachaserm	3	3	3	4	4	4	41	52	63
Rahtborika-Nukroh	4	3	3	3	9	9	70	109	110
Pan Phrao	3	3	3	2	10	10	34	22	21
Phon-thong Pattana	3	3	3	13	18	18	40	53	53
Pua	2	3	3	3	3	3	38	58	65
Mae Tang	2	2	2	3	1	1	34	38	45
Ranode Wittaya	4	4	4	3	4	4	47	62	63
Photaram	3	3	3	3	4	4	74	83	83
TOTAL	55	54	54	91	123	133	1202	1407	1462
Mean	3.44	3.38	3.38	5.69	7.69	8.31	75.13	87.94	91.38

TEACHER AND STUDENT POPULATIONS IN SAMPLE SCHOOLS

26-B

Study Leave			Vacancies			Total Number of Teachers			Students		Student/Total Staff Ratio	
1977	1978	1979	1977	1978	1979	1977	1978	1979	1977	1978	1977	1978
2	2	2	2	5	5	139	168	168	2706	2899	19.5	17.2
1	3	3	1	3	3	46	73	74	790	1118	17.2	15.3
3	4	4	--	9	9	144	161	163	2604	3038	18.1	18.9
5	7	7	4	5	5	119	141	143	2081	2595	17.5	18.4
2	3	3	3	11	11	116	135	134	1584	2571	13.6	19.0
3	2	2	--	2	2	114	133	135	2052	2615	18.0	19.7
6	6	6	2	15	15	156	182	196	3230	3331	20.7	14.6
6	4	4	5	5	5	123	141	142	2290	2550	18.6	18.1
1	2	2	3	13	13	52	74	85	832	1325	16.0	17.9
2	2	2	2	27	27	81	150	151	1872	2400	23.1	16.0
--	1	1	2	13	13	41	49	48	599	974	14.6	19.9
1	1	1	1	14	14	58	89	89	1011	1478	17.4	16.6
1	--	--	3	8	8	47	72	79	775	1292	16.5	17.9
--	--	--	1	7	7	40	48	55	576	836	14.4	17.4
1	--	--	--	3	3	55	73	74	1062	1347	19.3	18.8
--	3	2	2	4	4	82	96	96	1514	1826	18.5	19.0
34	40	39	31	144	144	1413	1785	1832	25578	32195		
2.13	2.50	2.44	1.94	9.00	9.00	88.31	111.56	114.50	1598.63	2012.19	17.67	17.8

Overall, there was an increase in student population between 1977 and 1978 of 6617, or 26%. There was a corresponding increase in teachers of 372, or 26%.

Documentary data (OSP, 1980) in Table 7 show the potential and actual enrolments of M1, MS 1, MS 3, and MS 5 students, by sex, in all government secondary schools, for the school years 1967 and 1978, where the information is available. Dramatic increases in both absolute numbers and proportions of students attending school will be found. For example, 26,291 or 6.68% of the potential male students were in MS 3 in 1967, but 121,283, or 24% were attending in 1978. In MS 5, 4,127 males, or 1.12% of the potential population were attending school, but by 1978, 33,713, or 13.29% were in attendance. Female students in MS 3 rose from 18,104 or 4.78% in 1967 to 99,352, or 20.44% in 1978. In MS 5, 3,812 or 0.69% of potential female students were in attendance. By 1978 the figure had risen to 40,284, or 8.92%. The combined male and female data show that in 1978 approximately 23% of all potential students were attending M1, MS 1 and MS 3, and slightly over 8% were attending MS 5. The total number of secondary school students in attendance in the four grades noted was 813,564 compared with 107,054 in 1967.

An enrolment check of secondary schools for the academic years 1977 and 1978 will be found in Appendix E. These data show that the target enrolments in the RSS, CIDA, and DSS (Diversified Secondary Schools) were exceeded by actual enrolments in these years. The target for the RSS schools for 1977 was 43,160 students, but 49,422 were enrolled. The target for 1978 was 53,730, but 58,821 were enrolled. By contrast, nation-wide figures show a shortfall of 15,714 in 1977 and 26,233 in 1978, in terms of actual enrolments compared with targets. The evidence, then, is quite compelling that the RSS Project schools have been successful in attracting students.

Table 7

Potential and Actual Enrolments of M1, MS 1, MS 3 and MS 5 in All Government Secondary Schools in 1967 and 1978

(Office of Special Projects Data)

Sex/Year		M1*			MS 1			MS 3			MS 5		
		Potential	Actual	%	Potential	Actual	%	Potential	Actual	%	Potential	Actual	%
Male	1967	--	--	--	--	32,430	--	393,584	26,291	6.68	369,324	4,127	1.12
	1978	--	144,669	--	--	145,987	--	500,337	121,283	24.24	253,618	33,713	13.29
Female	1967	--	--	--	--	22,290	--	378,968	18,104	4.78	464,479	3,812	0.69
	1978	--	114,007	--	--	114,044	--	485,958	99,352	20.44	451,665	40,284	8.92
Both	1967	--	--	--	--	54,720	--	--	44,395	--	--	7,939	--
	1978	1,086,305	258,901	23.83	1,085,016	260,031	23.97	986,295	220,635	22.37	916,144	73,997	8.08

*M classes start in 1978 school year following the introduction of 1978 Lower Level Secondary Curriculum

Number of male and female potential are not available in M1 and MS 1

Table 8, presents documentary data (OSP, 1980) concerning the potential and actual enrolments of M1, MS 1, MS 3, and MS 5 students in all private secondary schools, 1967 and 1978. It will be noted that although in 1967 the student population was almost evenly divided between government and private secondary schools, by 1978 the government schools far exceeded the private schools in enrolments in a given grade level. In M1, in 1978, government secondary schools enrolled 258,901 students, private schools 75,379. In MS 1 in 1978, government schools enrolled 260,031, private schools, 79,314. In MS 3 in 1978, government schools enrolled 220,635, private schools, 69,720. In MS 5 in 1978, government schools enrolled 73,997, private schools, 22,564. In sum, in 1978 government schools enrolled 220,653 students in the grades noted, and private schools, 69,720, or 76.7% and 23.3% respectively, of the total number of students in M1, MS 1, MS 3, and MS 5.

It can be concluded that in the eleven-year period from 1967 to 1978, government schools had become the preferred secondary schools in Thailand, by a wide margin.

Entrance to Mae Tang School,
Chiengmai Province

Table 8

Potential and Actual Enrolments of M1, MS 1, MS 3, and MS 5 in All Private Secondary Schools in 1967 and 1978

(Office of Special Projects Data)

Sex/Year		M1*			MS 1			MS 3			MS 5		
		Potential	Actual	%	Potential	Actual	%	Potential	Actual	%	Potential	Actual	%
Male	1967	--	--	--	--	38,953	--	381,249	26,706	0.006	369,324	5,933	1.606
	1978	--	41,045	--	--	44,307	--	481,178	39,964	8.305	464,479	12,514	2.694
Female	1967	--	--	--	--	25,529	--	336,064	16,699	4.969	353,618	4,688	1.326
	1978	--	34,334	--	--	35,007	--	468,084	29,756	6.357	451,665	10,050	2.225
Both	1967	--	--	--	--	64,482	--	--	43,405	--	--	10,621	--
	1978	--	75,379	--	--	79,314	--	--	69,720	--	--	22,564	--

*M1 classes start in 1978 school year following the introduction of 1978 Lower Level Secondary Curriculum

Number of male and female potential are not available in M1 and MS 1

Concerning enrolments in Practical Arts, a central feature of the diversification of the curriculum, Table 9 shows that 20,259 students were enrolled in the 16 sample schools in 1979. Of these, 11,452 were male and 8,807, female. The Lower Secondary grades have substantially higher enrolment in Practical Arts than the Upper Secondary, which is understandable because of the exploratory nature of Practical Arts in the lower grades, and the concentration upon preparation for further education in the upper grades.

Table 9

Number of Students Reported by the Sample Schools to be Enrolled in Practical Arts Courses, by Grade, for the School Year 1979

(Principal's Questionnaire Data: N = 16)

	M1	M2	MS 2	MS 3	MS 4	MS 5
Total Male	3039	2426	2336	2550	649	452
Mean Male	234	187	193	196	59	56
Total Female	1619	1772	2073	2485	471	387
Mean Female	135	136	159	191	54	55

In summary, probably the most outstanding features of the demographic data presented here are the dramatic increase in absolute numbers and in proportions of students attending secondary school in Thailand, and the marked shift in preferences for government over private secondary schools.

2. PROFILES OF PRINCIPALS

Length of service of principals is set forth in Table 10. Sixteen principals, twelve males and four females, were involved in this study. The mean length of service of these administrators, in their current schools, was six-and-one-half years. Seven principals have served for less than five years in their present positions, with five serving more than ten years.

Table 10

Years of Service of Principals in Present School

(Principal's Questionnaire Data)

	Years of Service						
	0 - 1	1 - 2	3 - 4	5 - 6	7 - 8	9 - 11	12 - 20
Number of Principals	2	3	2	2	2	3	2

Data on the academic qualifications of principals will be found in Table 11. The generally high level of qualifications of the principals is noteworthy.

Co-operative Assessment Team and Senior Staff,
Rayong Wittayakom School, Rayong Province

Table 11

Academic Qualifications of Principals in the Sixteen Sample Schools

(OSP Documentary Data)

No. of Principals	Credentials
7	B. Ed. (Sri Nakarin Wirot U.)
1	B. Ed. (Chulalongkorn U.)
2	Dip. in Ed. and B. Ed. (Sri Nakarin Wirot U.)
3	M. Ed. (Chulalongkorn U.)
1	B. Ed. (Sri Nakarin Wirot U.) M. Ed. (Chulalongkorn U.)
1	Dip. in Ed. B. Ed. (Sri Nakarin Wirot U.) M. Ed. (U. of Alberta, Canada)
1	M. Ed. (U.S.A.)

Co-operative Assessment Team and Senior Staff,
Pan Phrao School, Nongkhai Province

3. PROFILES OF TEACHERS

A profile of teachers in the RSS Project schools is presented in this part, under these headings: demographic data; teacher education; experience; and teaching assignments.

3.1 Demographic Data

Identifying data received from the 1,069 teachers in the sample showed that of the 1,069 teachers, 448 were male and 579 female, with 42 teachers not responding to the query. The mean age of the teachers was 27.1 years, with a mean of 7.8 years of service in education. Average length of service in their present school was 4.9 years.

3.2 Teacher Education

The teaching qualifications of the teachers in the 16 sample schools are set forth in Table 12. Due to the fact that many teachers hold more than one qualification, the total is greater than the total number of teachers in the sample. Some unusable responses were also received. It will be noted that 291 (19.30%) of the credentials were Certificates; 705 (44.34%) were Diplomas; 584 (36.73%) were Bachelor's degrees or equivalent; and 10 (0.63%) were Master's degrees or higher. Concerning institutions granting the credentials, the distribution according to Thai or Foreign is as follows:

Credential	Thai Institutions	Foreign Institutions
Certificate	11	0
Diploma	10	2
Bachelor's Degree	10	4
Master's Degree or Higher	8	2
Total	39	8

Table 12

Qualifications of Teaching Staff in the Sample Schools

(Teacher's Questionnaire Data: N = 1069)

Credential	N	Total	Percent	Number of Granting Institutions
Certificates		291	19.30	11
Certificate in Teaching (Gr. 11 - 12)	222			
Certificate, Professional (Gr. 11 - 13)	61			
Upper Secondary	8			
Diplomas		705	44.34	12
Diploma in Education	531			
Diploma in Voc. Educ. (Teaching)	25			
Diploma in Voc. Educ. (Profess.)	149			
Bachelor's Degree (or Equivalent)		584	36.73	14
B.Ed. (4 years)	519			
B.A. (4 years)	22			
B.Sc. (4 years)	41			
B.Comm. (4 years)	1			
L.L.B. (4 years)	1			
Master's Degree or Higher		10	0.63	3
M.Ed. (2 years)	4			
M.A. (2 years)	4			
M.Sc. (2 years)	2			
TOTAL		1590		

3.3 Teaching Experience

Teachers had a mean of 7.8 years experience in education (to the date of this study) with 4.9 years in the present school. Seventy-five percent of those teachers reported less than ten years in education, with sixty-six percent reporting less than five years experience in their present school. The greatest number of teachers had responsibility for MS 3 classes, followed by M1 and MS 5 classes, with less than ten having MS 1 as their major teaching assignment.

3.4 Teaching Assignments

Data from the Teacher's Questionnaire revealed that courses and programs tending to occupy most of the teachers' time were academic and technical, as might be expected, with Physical Education, Guidance and Fine Arts requiring less time. Many teachers taught more than one subject.

Sixty percent of the respondents taught between fifteen and nineteen periods per week, for a mean of 17.2 periods per week. Six hundred sixty-two teachers reported that they carried non-teaching responsibilities. Of these, forty-five percent had less than ten non-teaching periods per week, while forty-three percent reported between ten and nineteen periods of non-teaching duties per week.

In explanation of the apparently large number of teachers assigned to non-teaching duties, these duties are as follows (OSP, 1980):

1. Administrator (Principal) has the duty to carry out and be responsible for the control, promotion, co-ordination of planning, implementation and evaluation of academic, business, disciplinary and student activities, including other related affairs work.
2. Assistant Administrator (Assistant Principal) helps the administrator in managing the institution and carries out other duties assigned by the administrator. There can be 1 - 4 assistant administrators in a school according to the following criteria:

9 - 17 Classroom school: One assistant principal for business and academic affairs.

(continued)

18 - 26 Classroom school: Two assistant principals; one for businees, the other for academic affairs.

27 - 41 Classroom school: Three assistant principals:

a) assistant principal for administrative affairs
b) assistant principal for business affairs
c) assistant principal for academic affairs

More than 42 Classroom school: Four assistant principals:

a) assistant principal for academic affairs
b) assistant principal for business affairs
c) assistant principal for administrative affairs
d) assistant principal for school service

3. Support Staff

Finance and Accounting Staff examine documents, keep accounts, look after receipts and invoices, and take care of the school's budget. They may be assigned to teach Applied Mathematics.

Business Staff are responsible for school's paper work and correspondence, take care of visitors, and supervise school's documentation. They may be assigned to teach Thai.

Registration and Evaluation Staff prepare student evaluation materials and documents, carry out evaluation in accordance with the regulations, as well as give advice to teachers and students on evaluation procedures.

Guidance Staff give advice to students on academic matters as well as personal conduct and problems, in co-operation with parents, teachers and other responsible persons, so that students may adjust themselves to academic requirements and new personality roles.

Library Staff look after the school library and give library service to students and teachers, train students to use the library, and organize reading promotion activities.

Supplies Equipment Staff are responsible for the acquisition and purchase of equipment and furniture, including inspection on delivery, safe-keeping, requisitioning and allocations, registration and maintenance of equipment and furniture. They also assure the safety of school premises from burglary and fire.

Student Activities Staff take charge of all co-curricular activities and co-ordinate with the advisory teachers of every club, take care of Scouts, Junior Red Cross and Junior Military Defence programmes, and organize training courses according to the curriculum. They also co-ordinate with various departments in the school and other out-of-school agencies in organizing student activities. They draw up the annual schedule for students' activities in the school.

Health Staff prepare and acquire medical supplies, offer first aid and immunization services to students, help members of the community, including student's parents, in basic health care, give family planning advice and services to parents and to the public, including mother and child health care, and teach youth in the elementary knowledge of health care.

Audio-Visual Staff acquire and maintain audio-visual equipment, and give advice to teachers on how to acquire and utilize audio-visual aids.

Nutrition Staff prepare school menu, control food purchase and its preparation in accordance with nutritional principles, keep accounts and receipts of school food purchases, teach the fundamentals of nutrition to students, co-ordinate with Public Health officers in the diffusion of knowledge and correct implementation of nutritional principles.

It can be seen that the RSS schools are very active in many facets of school and community life, which explains the extensive involvement of teachers in non-teaching activities. It must be kept in mind that the general policy of the Ministry of Education is to employ qualified teachers to carry out any activities in the school, unlike school systems in some countries where para-professionals with other qualifications than teaching perform many of the tasks which are assigned to teachers in Thailand.

Eight hundred twenty-one teachers reported receiving lesson preparation periods. Of these, forty-seven percent reported having less than ten preparation periods, while forty-seven percent reported receiving between ten and nineteen periods.

The average number of students per class was reported to be 41, while each teacher saw an average of 124 students per day, in a range extending from 49 or less to over 400. Six hundred seventy-four teachers (64%) reported teaching co-educational classes.

4. PROFILES OF STUDENTS

The student sample of this study consisted of 3,991 students from M1, MS 3 and MS 5. Of these, 1429 were enrolled in M1, 1431 in MS 3 and 1137 in MS 5. There were almost equal numbers of both male and female students in the sample, with 10% more female students than male students in MS 3 and MS 5. This was the result of the sample including 4 girls' schools as compared with 3 boys' schools, the rest being co-educational.

Data on the age of pupils will be found in Table 13. The mean age of the M1 sample was 12 years 11 months; of the MS 3 sample, 16 years 0 months and of the MS 5 sample, 17 years 11 months. An interesting datum in the table is the record of 64 students in MS 5 aged between 20 and 21. It would appear that, with the exception of Chinese and Malay, the student population is fairly evenly distributed across the six language or dialect groups. The predominant religion of the students is Buddhism.

Concerning the socio-economic status of students, principals reported that 13.6% of their students could be considered in the upper category, 57.8% in the middle, and 28.6% in the poor socio-economic bracket.

Table 13

Age of M1, MS 3 and MS 5 Students in Sample Schools

(Student's Questionnaire Data)

Age in Years	M1	MS 3	MS 5
	N	N	N
10 - 11	9	3	0
12 - 13	833	2	1
14 - 15	556	142	2
16 - 17	16	1136	133
18 - 19	1	126	926
20 - 21	0	1	64
22+	0	0	0
No response	10	19	11
Total	1425	1429	1137

Living accomodation of the students will be found in Table 14. It will be noted that the largest proportion of the students in all grades being studied live with both parents, although a considerable number live with relatives or mother only. In the upper grades, other living arrangements than with family or relatives were noted.

Table 14

Students' Living Accomodation

(Student Questionnaire Data)

With Whom Student Living	M1	MS 3	MS 5
Father Only	41	36	37
Mother Only	125	163	119
Both Parents	1057	980	720
Other Relatives	148	179	167
Other	45	63	94
No Response	9	8	2
Total	1425	1429	1137

Distance students travel to school is set forth in Table 15. The fewest number of students live 4 - 6 kilometers from the school, and a surprising 29.46% of the MS 3 and 35% of the MS 5 students live more than 6 kilometers from the school.

Table 15

Distance of Students from School

(Student Questionnaire Data)

Distance	M1 Students		MS 3 Students		MS 5 Students	
	N	%	N	%	N	%
Less than 1 km	375	26.32	280	19.59	251	22.08
1 - 3 km	492	34.53	545	38.14	356	31.31
4 - 6 km	194	13.61	174	12.18	125	10.99
Greater than 6 km	353	24.77	421	29.46	398	35.00
No response	11		9		7	
Total	1425		1429		1137	

Table 16 shows the source of funding for various costs of attending school, by grade. It will be noted that the vast majority of students are supported entirely by their parents for the costs of their schooling.

Table 16

Source of Funding for Selected School Expenses

(Student Questionnaire Data)

Expenses	Number of School-Supported Students			Number of Parent-Supported Students			Number of Other-Supported Students		
	M1	MS 3	MS 5	M1	MS 3	MS 5	M1	MS 3	MS 5
School Fees	12	11	3	1388	1390	1114	23	18	18
Textbooks	20	4	1	1375	1389	1110	21	21	21
Room and Board	6	0	1	1390	1395	1114	27	19	16

In connection with part-time employment of students, Table 17 sets forth the data for the three grades. A small percentage (8% to 12%) of the students in M1, MS 3 and MS 5 follow part-time employment. A puzzling feature of these reported jobs is that the students in the higher grades apparently work more hours for less wages per week.

Table 17

Part-time Employment of M1, MS 3 and MS 5 Students

(Student Questionnaire Data)

	M1 (N = 1425)	MS 3 (N = 1429)	MS 5 (N = 1137)
Working part-time	108 (8.1%)	165 (11.5%)	125 (10.9%)
Hours per week	14.5 hours	17.4 hours	20.5 hours
Wages per week	฿ 271	฿ 189	฿ 136

The various types of part-time employment followed by the students are presented in Table 18. Agricultural and business occupations were the most common.

Students in Agriculture Class
Pua School, Nan Province

Table 18

Types of Part-time Employment of M1, MS 3 and MS 5 Students

(Students' Questionnaire Free Response Data)

Type of Work	M1	MS 3	MS 5	Total No. of Jobs
	N = 1425	N = 1429	N = 1137	
Farm or orchard work	38	78	88	204
Grocery worker	18	21	13	52
Cattle raising worker	5	7	3	15
Dessert cooking for sale	6	5	2	13
Construction worker	5	6	1	12
Mushroom-raising worker	2	9	1	12
Auto mechanic or Electricity worker	4	5	2	11
Gardener	2	6	1	9
Laundry worker	0	1	5	6
Water carrier	4	2	0	6
Co-operatives clerk	0	2	3	5
Brick factory worker	4	0	0	4
Dishwashing	3	1	0	4
Car cleaning worker	1	2	0	3
Paper bag making for sale	2	1	0	3
Baby sitter	1	1	0	2
Out posting	0	1	0	1
Total part-time jobs	96	148	119	363
No part-time jobs	1329	1281	1018	3628
Total	1425	1429	1137	3991

5. PROFILES OF PARENTS AND ALUMNI

A profile of the parents and alumni selected by the principals of the schools to participate in the study is presented in this part, under these headings: age; level of education; number of children attending school. The selected persons totalled one hundred eighty-three, representing a cross-section of Thai life from such occupations as farmers, bankers, businessmen, civil servants, military personnel, and professionals. Sixty-five percent (118) of the sample was male, thirty-five percent (65) female.

5.1 Age of Parents and Alumni

Information on the age of the selection of parents and alumni will be found in Table 19. A large majority were young, with 46% under the age of 29. By contrast, 15% of the selection was over the age of 50. Only 3% was of retirement age (over 60).

Table 19

Ages of Parents and Alumni

(Parent's and Alumni Questionnaire Data: N = 183)

	Age in Years									
	Less than 29	30-34	35-39	40-44	45-49	50-54	55-59	60+	No Resp.	Total
N	84	10	18	12	29	13	9	6	2	183

5.2 Level of Education of Parents and Alumni

Data concerning the level of education of parents and alumni included in the study will be found in Table 20.

Ninety-one percent of the sample had post-secondary certificates or diplomas. Twenty-three percent held university degrees. Sixty percent of the sample had attended the school at which their children were now in attendance.

Table 20

Level of Education Attained by Parents and Alumni

(Parent's and Alumni Questionnaire Data: N = 183)

Education Level	N	%
Elementary Teaching Certificates	27	14.75
Secondary Teaching Certificates	72	39.35
Technical Diplomas	30	16.39
University Degrees	38	20.77
No response	16	8.74
Total	183	100.00

5.3 Number of Parents' and Alumni Children Attending School

The number of children of parents and alumni who are attending RSS schools is presented in Table 21. Although the item was not designed to yield information as to how many parents and alumni sent boys only, girls only, or both boys and girls, the data indicated that over 90% of the parents sent one or two children to school, and no parents reported that they had more than five children attending school. Over 40% of the sample of parents and alumni did not respond to the item, which might be a rough indication of the proportion who were not sending children to school.

Interviewing a Parent, "Phota Wattanaseni"
Photaram, Rajburi Province

Table 21

Number of Children in Sample of Parents and Alumni Sending Children to School

(Parent's and Alumni Questionnaire Data: N = 183)

Number of Children Attending	Number of Parents Sending Boys	Number of Parents Sending Girls	Total of Categories of Boys/Girls	%
1	63	59	122	58.65
2	34	32	66	31.74
3	6	8	14	6.73
4	1	1	2	0.96
5	3	1	4	1.92
Total responses	107	101	208	100.00
No response	76	82		
Total	183	183		

5.4 Grade Levels of Children of Parents and Alumni

Table 22 shows the distribution of children of parents and alumni in the sample according to the grade the children were attending. It will be noted that the distribution across grades is fairly even, with the highest number (59) attending MS 3, and lowest (31) attending M2. Ninety-five (55.5%) of the 171 parents also responsed that their children were taking Practical Arts.

Table 22

Grade Level of Children of Parents and Alumni

(Parent's and Alumni Questionnaire Data: N = 183)

Grade Level	Number of Parents With Children Enrolled	Grade Level	Number of Parents With Children Enrolled
M1	47	MS 3	59
M2	31	MS 4	47
MS 2	41	MS 5	41

6. PROFILE OF NEARBY SCHOOLS

Principals of nearby government secondary schools were asked to compare their schools with the nearest RSS school. A list of these nearby schools will be found in Appendix F. Minimal information about teachers and students in the schools was requested from the principals. Questionnaires yielded the information that the mean size of the nearby schools was 858.6 students, with 44.3 teachers. It can be seen, then, that the nearby schools are considerably smaller than most of the RSS schools, a fact which should be kept in mind when inferring from the comparative data.

7. SUMMARY COMMENTS

The data in this chapter indicate that the sample schools are set in medium-sized provinces, districts, and sub-districts. A sharp rise has occurred since 1977 in the number of students and teachers, due in part to the change in 1978 from the former 7-3-2 grade organization of the schools to the 6-3-3 system, which has meant a double cohort commenced to pass through the system in 1978. Some schools had unique situations which allowed for differences from the general pattern of increases.

The increase in both absolute numbers and proportion of students in the secondary grades throughout Thailand since 1967 is very remarkable, with twelve-fold increases noted for girls in MS 5, and approximately four-fold increases in MS 3. The change in nation-wide preference of students for government secondary schools as opposed to private schools has been quite remarkable since 1967.

Principals in the RSS schools were well-qualified, with varying amounts of service as principals. Teachers were generally young and well-qualified, with less than ten years' experience. A considerable number of teachers spent large proportions of their time on non-teaching duties in the school setting.

The profile of students in the RSS schools showed them to be about evenly divided between males and females, with almost two-thirds coming from middle-class families. Most lived with both parents, or with relatives, travel 1 - 3 kilometers to school, and were supported in school by their parents. Between eight and twelve percent of M1, MS 3 and MS 5 students had some form of part-time work.

Parents selected for the study were young, half being below age 29, well-educated, and heavily skewed to males. Most sent one or two children to school, about evenly divided between boys and girls, and evenly distributed among the grades from M1 to MS 5.

Probably the single most dramatic piece of information in this chapter was the increase since 1967 in both absolute numbers and proportions of boys and girls attending secondary schools across Thailand. Probably the most outstanding example was the twelve-fold increase of girls attending MS 5. The RSS schools share in this growth pattern.

* * * * * * * * * * * *

CHAPTER THREE

FINDINGS: CURRICULUM

A major focus of the study was consideration of the different facets of the curricula used in the RSS schools (and in a small number of other schools in Thailand). The curricula used in the academic years 1978 and 1979 have already been described in Chapter One, and should be referred to with reference to the findings set forth in this chapter.

Discussion which follows will be focussed upon the factual details of implementation of a diversified curriculum, and upon the perceptions of principals, teachers, M1, MS 3 and MS 5 students, and parents and alumni who were involved with the sixteen sample schools at the time of the study in 1979. The major divisions used in this study on the topic of curriculum will be: programs and courses; adequacy and flexibility of the curriculum; teachers and the curriculum; and students and the curriculum.

1. PROGRAMS AND COURSES

The most basic concept in comprehensive or diversified curricula is provision of a wide variety of courses and programs, and freedom for students to choose from these the ones suited to the students' needs, abilities and interests. In this section on programs and courses, then, considerable attention is paid to the availibility of electives and Practical Arts courses or programs, the influences which caused students to choose certain electives, involvement in the process of curriculum development, and possibilities for changes in the curriculum.

1.1 Selection and Use of Practical Arts Electives

1.1.1 Reasons for Choosing Practical Arts Electives. Principals' perceptions of the reasons for students choosing Practical Arts electives are presented in Table 23. Principals perceived that the two strongest influences on the choice of Practical Arts electives were full student choice and the advice of guidance counsellors, although the counsellors' influence was perceived to decline from MS 2 and MS 5. In considering the data in Table 23, it is useful to remember that MS 4 students from other schools may be in an RSS school for the first time, and have not had the experience of Practical Arts in their former school. Also, MS 3 has the freest choice of electives, which may account for the low percentage (5.7%) perceived as falling under category (c) "Partially compulsory, partially student's choice." The reason that M1 does not appear in this table is that under the present curriculum, M1 has no choice of Practical Arts electives.

Table 23

Principals' Perception of Reasons for Choosing Practical Arts Electives, by Grade Level

(Questionnaire Multiple Choice Data: N = 16)

Perceptions of Reasons for Taking Courses or Programs	Percent by Grade Level			
	MS 2	MS 3	MS 4	MS 5
a) Advice of guidance counsellor	38.1%	33.7%	17.1%	20.2%
b) Direction of parents	9.8%	11.5%	12.2%	14.7%
c) Partially compulsory, partially student's choice	5.9%	5.7%	17.7%	18.9%
d) Student choice, limited by timetable conflicts	6.1%	5.7%	2.3%	2.3%
e) Full student choice	40.1%	43.4%	50.7%	43.9%
Total	100.0%	100.0%	100.0%	100.0%

Interview data from students in MS 3 and MS 5 produced additional interesting data concerning choosing or not choosing Practical Arts electives. Reasons given for choosing included: a liking for Practical Arts; preparation for further studies; preparation for a career; gives practical life skills. Over half the students gave no reason on interview for choosing Practical Arts electives.

Reasons for not choosing Practical Arts included: prefer academic; no aptitude; no interest; no electives available. Slightly less than half the students interviewed gave no reason for not choosing Practical Arts.

1.1.2 Availability of Practical Arts Courses. On interviews, principals varied considerably in their responses to questions about the availability of Practical Arts courses. Some schools stated that all who wished Practical Arts courses could take those they wanted, but other schools were limited by insufficient space, too many applicants, shortages of specialist teachers, equipment and materials. To the question concerning the possibility of higher enrolments in Practical Arts without major modifications to the school, principals of some schools replied that they could do so in some areas such as Automotives, Electronics, Foods and Nutrition, Drafting, Agriculture, and Woodwork. Other schools stated that only by double-shifting could they accomodate more students. A few schools stated that they could take more students in Practical Arts with no difficulty.

1.1.3 Practical Arts Being Taken (M1). Although Practical Arts is a "compulsory elective" for M1, responses on interviews to the query concerning Practical Arts being taken indicate a patterning of Practical Arts offerings by the sixteen sample schools. In order of frequency, the distribution of Practical Arts offerings was stated to be: Electricity, Drafting, Power Mechanics, Agriculture, Dressmaking, Home Economics, Woodwork, Business Education, Leatherwork, and "Other."

1.2 Extent of Student Choice of Optional Courses

The perceptions of teachers and of MS 3 and MS 5 students as to the extent of their choices of all options will be found in Table 24. The perceptions of teachers and students varied considerably, due in part to the fact that teachers were not asked to distinguish between M1, MS 3 and MS 5 students, each group of which has a differing freedom of choice. M1 students have no choice, MS 5 some choice, and MS 3 considerable choice. However, it is interesting to note, for example, that 3.9% of the teachers reported all options were assigned to students, whereas 38.5% of the MS 5 students reported that all options were assigned to them. Concerning the category of partially assigned and partially free choice of options, 74.9% of the teachers reported this as the pattern, but only 43.4% of the MS 5 students reported their programs arranged this way.

Table 24

Extent of Student Choice of Optional Courses

(Questionnaire Multiple Choice Data)

	Teachers' Perceptions		Students' Perceptions			
			MS 3		MS 5	
Extent of Choice	N	%	N	%	N	%
Free student choice	116	10.85	436	30.51	183	16.09
Some assigned, some choice	801	74.92	888	62.14	494	43.44
All courses assigned	42	3.92	79	5.52	438	38.52
No response	112	10.31	26	1.83	22	1.95
Total	1069	100.00	1429	100.00	1137	100.00

Responses to the query concerning reasons for not taking a desired option will be found in Table 25.

Table 25

Reason for Not Being Able to Choose Optional Course

(Questionnaire Free Response Data)

Reason	MS 3		MS 5	
	N	%	N	%
No free choice	290	20.29	476	41.86
Teacher's advice	8	0.56	5	0.44
Parent's advice	5	0.35	1	0.09
Classmate's advice	1	0.07	2	0.18
Do not view it as an important subject	2	0.14	6	0.53
View it as a difficult subject	53	3.71	21	1.85
Not having good background for course	46	3.22	14	1.23
Do not like, do not have aptitude for course	35	2.45	17	1.50
Not having met minimum requirement	18	1.26	2	0.18
Not ready to learn	45	3.15	6	0.53
Not in good health	4	0.28	3	0.26
Limited equipment and facilities	14	0.98	4	0.35
Sub-total	521	36.46	557	48.99
No response	908	63.54	580	51.01
Total	1,429	100.00	1,137	100.00

Among the MS 3 students, 521, or 36%, gave some reason for not being able to choose an option. Of these, 290, or 20%, indicated that the reason was a lack of free choice. None of the other reasons given represented more than 3.7% of the sample. No responses were received from 908, or 64% of the MS 3 sample, which could be interpreted to mean that about two-thirds of the students were able to take the options they wished. Among the MS 5 students, 476, or 42%, stated they could not choose the option they wanted because of lack of free choice of options. None of the other reasons given fell above 2% of the sample. No responses were received from 580, or 51%, of the MS 5 sample, which could be interpreted to mean that half of the students were able to take the options they wished.

An interesting datum is that only 1% of the MS 3 students and 0.35% of the MS 5 students cited limited equipment and facilities as reasons for not being able to choose the options they desired. These data indicate that the structuring of the curriculum may be the major limiting factor in choice of options rather than physical plant or personal reasons.

The two curricular structures set forth in Table 26 show the effect of the 1978 curriculum on students' elective courses, compared with those in the 1969 curriculum. English courses were not compulsory in the 1978 curriculum, but "sets of courses" that schools planned for students (under the recommendation of the Department of Educational Techniques) always included English courses. It should be noted that these sets of courses are called "programs" in the school, which has a different meaning from the sense we are discussing in this section.

Table 26

Comparison of Class Time in Periods per Week

1969 and 1978 Curricula

	Periods per Week											
	1969 Curriculum						1978 Curriculum					
	MS 1		MS 2		MS 3		M1		M2		M3	
Group of Courses	C*	E**	C	E	C	E	C	E	C	E	C	E
1. Language												
Thai	4	-	4		4		4	-	4	2	4	4
Foreign	5	-	5		-		-	6	-	6	-	8
2. Science & Math												
Science	4	-	4		4		4	-	4	-	4	-
Math	4	-	4		-		4	-	4	-	-	6
3. Social Studies	4	-	4		4		5	-	5	-	5	4
4. Personality Development												
Physical Ed.	3	-	3		3		3	2	3	2	3	4
Fine Arts	2	-	2		-		2	2	2	4	-	6
5. Work Ed. & Vocational												
Work Ed.	-	-	-	-	-	-	4	-	4	-	4	-
Vocational Ed.	-	-	-	-	-	-	-	6	-	6	-	12
6. Practical Arts	8	-	-		-		-	-	-	-	-	-
7. Information Service	1	-	1	-	1	-	-	-	-	-	-	-
Sub-Total	35	-	27	3-5	16	14-19	26	6	26	6	20	12
Activities, Guidance or Remedial Teaching	-	-	-	-	-	-	3		3		3	
Grand Total	35		35		35		35		35		35	

*Compulsory

**Electives

Remarks: English language is compulsory in MS 1 and MS 2 in the 1969 Curriculum.

Electives in the MS 2 and MS 3 1969 Curriculum can be either courses in academic subjects or in Practical Arts.

Number of periods in the 1978 Curriculum in electives is the maximum number that one student can choose from each group of courses.

1.3 Enrolments in Academic Subjects

Principals' responses to the request to indicate percentages of students at each grade level who took only academic subjects in the academic year 1979 are shown in Table 27, divided according to curriculum in use at the various levels at that time. It will be noted that the lowest proportions, 25.8% and 26.6%, were found in MS 2 and MS 3. In M1 and M2, higher percentages of students took only academic subjects -- 40.0% and 36.1% respectively. The highest percentages taking academic only were found in MS 4 and MS 5 -- 61.5% and 68.9% respectively, which was to be expected, since MS 4 and MS 5 students in 1979 had had no chance to explore other subjects in lower levels, and students in these grades are typically preparing for post-secondary education entrance examinations.

The range of percentages taking academic subjects only varied sharply from school to school, the lowest range for a grade level being 39% for MS 3, and the highest, 83% for MS 5. It can only be concluded that extreme variations from school to school exist in the proportions taking academic subjects, or that the question was misinterpreted by respondents.

Table 27

Percentages of Students Taking Only Academic Subjects,

Academic Year 1979

(Principal's Questionnaire Data)

Grade Level	Curriculum Being Used	No. of Schools Reporting	Percentage	Range of Percentage
M1	1978	13	40.00	86
M2		13	36.15	78
MS 2	1969	15	25.8	62
MS 3		15	26.6	39
MS 4	1975	15	61.5	78
MS 5		13	68.92	83

1.4 Adequacy of Program Articulation

The perceptions of principals and teachers with regard to program articulation are set forth in Table 28. A "To what extent . . ." scale was used for this item. An example of this type of scale is seen below:

21. Program Articulation

To what extent is the articulation of your school's program adequate?

Type of Articulation	Adequacy of Articulation				
	To a Minimal Extent				To a Great Extent
a) Within your school	1	2	3	4	5

Both principals and teachers perceived articulation to be adequate or better than adequate, with the principals' ratings being considerably higher than those of the teachers. Articulation within the school was ranked highest by the principals. The lowest rating was given by the teachers to articulation with the world of work. The differences in means were statistically significant beyond the 0.01 level.

Table 28

Adequacy of Program Articulation

(Principal's and Teacher's Questionnaire Data)

Type of Articulation	Principals N = 16	Teachers N = 1069	
	$\bar{X}$	$\bar{X}$	N
Within school	4.00	2.98	1041
Between school and post-secondary institutions	3.75	3.03	1046
Within the world of work	3.56	2.90	1043

1.5 Program Strengths

Principals and teachers, on both questionnaires and interview schedules, and parents and alumni on interview, were asked to identify the three strengths of the program currently offered in their school. Responses are shown in Table 29. All three groups on all instruments used agreed that the strongest programs in their schools were Science, Agriculture, Mathematics and Practical Arts. Teachers, however, also mentioned Foreign Languages in the questionnaire almost as often as Practical Arts, whereas only one principal and no parents and alumni mentioned Practical Arts.

Table 29

Program Strengths as Perceived by Principals, Teachers, Parents and Alumni

(Questionnaire Free Response Data)

Program	Teacher's Questionnaire N = 1069*		Teacher's Interviews N = 43		Principal's Questionnaire N = 16		Parents & Alumni Interviews N = 48	
	f	%	f	%	f	%	f	%
Science	463	21.80	10	14.71	7	14.58	3	13.04
Agriculture[1]	343	16.14	10	14.71	7	14.58	5	21.75
Mathematics	217	10.22	2	2.94	6	12.50	3	13.04
Practical Arts[1]	174	8.19	16	13.53	10	20.83	3	13.04
Foreign Languages	173	8.15	1	1.47	1	2.08	--	--
Home Economics[1]	130	6.12	1	1.47	3	6.26	2	8.70
Business Education[1]	104	4.90	--	--	1	2.08	1	4.35
English	98	4.61	4	5.88	3	6.26	--	--
Thai	97	4.57	--	--	1	2.08	--	--
Social Studies	94	4.43	3	4.41	1	2.08	--	--
Physical Education	81	3.81	8	11.76	--	--	2	8.70
Electronics/Electricity[1]	49	2.31	--	--	3	6.26	--	--
Fine Arts (Band)	47	2.21	10	14.71	1	2.08	2	8.70
Auto Mechanics[1]	41	1.93	--	--	4	8.33	1	4.35
Thai Music	13	0.61	3	4.41	--	--	1	4.35
Total	2,124	100.00	68	100.00	48	100.00	23	100.00

[1] Some respondents used the general term "Practical Arts," while others mentioned specific subjects within the Practical Arts area, so that the responses are not rigorously comparable due to possible overlap.

*Total responses can exceed the N of a sample group because respondents were asked to identify three strengths of the program in their schools.

1.5 Program Strengths

Principals and teachers, on both questionnaires and interview schedules, and parents and alumni on interview, were asked to identify the three strengths of the program currently offered in their school. Responses are shown in Table 29. All three groups on all instruments used agreed that the strongest programs in their schools were Science, Agriculture, Mathematics and Practical Arts. Teachers, however, also mentioned Foreign Languages in the questionnaire almost as often as Practical Arts, whereas only one principal and no parents and alumni mentioned Practical Arts.

Table 29

Program Strengths as Perceived by Principals, Teachers, Parents and Alumni

(Questionnaire Free Response Data)

Program	Teacher's Questionnaire N = 1069*		Teacher's Interviews N = 43		Principal's Questionnaire N = 16		Parents & Alumni Interviews N = 48	
	f	%	f	%	f	%	f	%
Science	463	21.80	10	14.71	7	14.58	3	13.04
Agriculture[1]	343	16.14	10	14.71	7	14.58	5	21.75
Mathematics	217	10.22	2	2.94	6	12.50	3	13.04
Practical Arts[1]	174	8.19	16	13.53	10	20.83	3	13.04
Foreign Languages	173	8.15	1	1.47	1	2.08	--	--
Home Economics[1]	130	6.12	1	1.47	3	6.26	2	8.70
Business Education[1]	104	4.90	--	--	1	2.08	1	4.35
English	98	4.61	4	5.88	3	6.26	--	--
Thai	97	4.57	--	--	1	2.08	--	--
Social Studies	94	4.43	3	4.41	1	2.08	--	--
Physical Education	81	3.81	8	11.76	--	--	2	8.70
Electronics/Electricity[1]	49	2.31	--	--	3	6.26	--	--
Fine Arts (Band)	47	2.21	10	14.71	1	2.08	2	8.70
Auto Mechanics[1]	41	1.93	--	--	4	8.33	1	4.35
Thai Music	13	0.61	3	4.41	--	--	1	4.35
Total	2,124	100.00	68	100.00	48	100.00	23	100.00

[1] Some respondents used the general term "Practical Arts," while others mentioned specific subjects within the Practical Arts area, so that the responses are not rigorously comparable due to possible overlap.

*Total responses can exceed the N of a sample group because respondents were asked to identify three strengths of the program in their schools.

1.6 Needed Program Improvements or Modifications

Programs and courses which are in need of improvement or modification as perceived by principals and teachers in free responses in questionnaires are described in Table 30. Considerable congruence was found between the perceptions of the principals and of the teachers on needed course improvements. Practical Arts and Physical Education led both lists. The comments indicated that the major areas of improvement needed were: more and better-trained staff; more equipment and materials of all types; additional facilities to meet the demand. Some confusion in terminology apparently existed between the words "programs" and "courses," so the data from the items labelled "Program Improvements" and "Course Modifications" were combined to develop the table found below.

Table 30

Needed Program Improvements as Seen by Principals and Teachers

(Questionnaire Free Response Data)

Program or Course	Teachers N = 1069	Principals N = 16
	f	f
Practical Arts	162	8
Physical Education	120	7
Home Economics	113	2
Agriculture	104	3
Mathematics	93	--
Fine Arts	93	6
Science	66	2
Business Education	55	4
Total	806	32

1.7 Course Deletions

From the open-ended question, "What courses should be dropped from your school program," no clear consensus appeared. Several seem to be unpopular, with low enrolments, i.e. Drafting in girls' schools. Metalwork and Electricity were also mentioned as inappropriate for girls' schools. Some teachers also indicated that there was a lack of interest in "para-military" organizations, such as the Boy Scouts, Girl Guides and Junior Red Cross.

1.8 Involvement in Curriculum Development

Perceptions of principals and teachers of the extent of involvement of the teaching staff of their school in curriculum development are shown in Table 31. Principals ratings on teacher involvement fell slightly above the mid-point for all three curricula, with a notion of slightly more participation in the development of the Comprehensive Curriculum. Teachers themselves rated their involvement considerably below the mid-point.

Table 31

Involvement of Teaching Staff in Curriculum Development

(Questionnaire Data)

Type of Curriculum	Extent of Involvement				
	Principals' Perceptions N = 16		Teachers' Perceptions N = 1069		
	$\bar{X}$	S.D.	$\bar{X}$	N	S.D.
Comprehensive Curriculum (1969)	3.38	0.88	2.47	1020	1.06
Lower Secondary Curriculum (1978)	3.06	0.85	2.48	1018	1.05
Upper Secondary Curriculum (1975)	3.06	0.93	2.46	996	1.10

Significant differences of perception ($p < 0.05$) of principals occurred between the 1969 and 1978 curricula concerning the degree of involvement and between the 1969 and 1975 curricula. Differences in teachers' perceptions were not statistically significant. Principals and teachers differed significantly ($p < 0.00$) in their perceptions of involvement of teachers in the development of the 1969 Comprehensive curriculum.

1.9 Difficulty of School Subjects

The item concerning students' perceptions of the difficulty of subjects was phrased as follows:

"Below are listed subjects taught in this school. Circle one of the numbers 1, 2, 3, 4, or 5, using the following code to express your opinion. Choose the ONE number which most closely agrees with your assessment of each of the courses you take. Answer only for those courses you have taken or are taking in this school.

1 -- Hard to understand; too difficult
2 -- Too much to cover; deals with too many topics
3 -- Challenging, interesting, useful, a good course
4 -- Not challenging enough; could be a good course if there were more topics, or if topics were studied in greater depth
5 -- Much too easy"

Perceptions of M1 students concerning the difficulty of courses will be found in Table 32. It will be noted that M1 students found the five most difficult subjects, in order, were: Foreign Languages, Metalwork, Drafting, Wood Construction, and Electricity. The five least difficult subjects were, in descending order: "Other" (Leatherwork, etc.), Health and Physical Education; Fine Arts; Food and Dressmaking.

Perceptions of MS 3 students concerning the difficulty of courses will be found in Table 33. It will be noted that MS 3 students found the five most difficult subjects, in order, were: Foreign Languages, Mathematics, Wood Construction, Electricity and Drafting (equal); and Thai. The five least difficult subjects were, in descending order: Animal Husbandary, Health and Physical Education, Dressmaking, Food and Fine Arts.

Table 32

M1 Students' Rankings of Difficulty of School Subjects from "Most Difficult" to "Least Difficult"

(Questionnaire Multiple Choice Data)

Subject	Rating of Difficulty 1 = Most Difficult 5 = Least Difficult	Ranking of Difficulty	N (M1 Sample = 1395)
Most Difficult			
Foreign Languages	2.65	1	1351
Metalwork	2.79	2	708
Drafting	2.83	3	559
Wood Construction	2.84	4	765
Electricity	2.86	5	674
Accounting	2.88	6	928
Typing	2.89	7	353
Planting	2.91	8	395
Mathematics	2.94	9	1395
Social Studies	2.95	10	1388
Thai	2.97	11	1395
Science	2.97	11	1394
Office Practice	3.00	12	457
Auto Mechanics	3.01	13	574
Animal Husbandry	3.03	14	648
Other (Specify)	3.17	15	244
Health and Physical Education	3.21	16	1363
Fine Arts	3.23	17	1382
Food	3.36	18	790
Dressmaking	3.39	19	707

Table 33

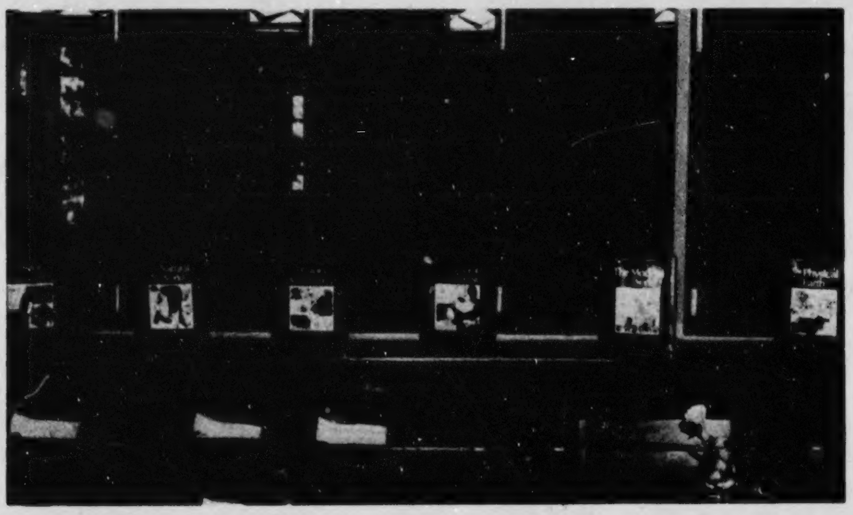
MS 3 Students' Rankings of Difficulty of School Subjects from "Most Difficult" to "Least Difficult"

(Questionnaire Multiple Choice Data)

Subject	Rating of Difficulty 1 = Most Difficult 5 = Least Difficult	Ranking of Difficulty	N (MS 3 Sample = 1429)
Most Difficult			
Foreign Languages	2.19	1	1270
Mathematics	2.21	2	1377
Wood Construction	2.56	3	668
Electricity	2.62	4	574
Drafting	2.62	4	437
Thai	2.66	5	1385
Social Studies	2.72	6	1386
Metalwork	2.76	7	535
Accounting	2.77	8	616
Planting	2.77	8	328
Science	2.82	9	1374
Typing	2.87	10	353
Office Practice	2.89	11	352
Other (Specify)	2.94	12	161
Auto Mechanics	2.99	13	459
Animal Husbandry	3.00	14	468
Health and Physical Education	3.16	15	1331
Dressmaking	3.22	16	477
Food	3.25	17	623
Fine Arts	3.30	18	1033

Perceptions of MS 5 students concerning the difficulty of courses will be found in Table 34. It will be noted that MS 5 students found the five most difficult subjects, in order, were: Mathematics, Foreign Languages, Planting, Science, and Electricity. The five least difficult subjects were, in descending order: "Other" (Leatherwork, etc.), Health and Physical Education, Fine Arts, Dressmaking, and Food.

Perceptions of parents and alumni concerning the courses that their students found most difficult at school are set forth in Table 35. The questionnaire item probing this opinion provided only for a listing, without any ranking or five-point scaling procedures. The data given below, then, are strictly frequencies of mention of the various courses. It will be noted that the five most difficult courses, according to parents and alumni, were, in order: Mathematics, English, Science, Physics, Thai and Thai Poetry. Some similarities were noted between students and parents and alumni. For example, all samples agreed that English or Foreign Languages were either first or second in difficulty, followed by Mathematics (with the exception of M1). Science was among the five most difficult courses for MS 5, and Thai for MS 3 and MS 5. Parents and alumni, however, mentioned Practical Arts so seldom (N = 3) that it became tenth on their list, whereas various courses under Practical Arts were among the five most difficult courses for M1, MS 3, and one (Planting) for MS 5.



Library, Sriyapai School, Chumporn Province

Table 34

MS 5 Students' Rankings of Difficulty of School Subjects from "Most Difficult" to "Least Difficult"

(Questionnaire Multiple Choice Data)

Subject	Rating of Difficulty 1 = Most Difficulty 5 = Least Difficult	Ranking of Difficulty	N (MS 5 Sample = 1119)
Most Difficult			
Mathematics	2.11	1	1092
Foreign Languages	2.23	2	1023
Planting	2.63	3	233
Science	2.64	4	1086
Electricity	2.66	5	249
Thai	2.67	6	1119
Social Studies	2.67	6	1111
Drafting	2.69	7	229
Wood Construction	2.70	8	302
Metalwork	2.75	9	267
Office Practice	2.80	10	230
Accounting	2.83	11	293
Animal Husbandry	2.90	12	290
Typing	2.96	13	247
Auto Mechanics	2.97	14	284
Other (Specify)	3.00	15	84
Health and Physical Education	3.13	16	1059
Fine Arts	3.16	17	585
Dressmaking	3.22	18	287
Food	3.28	19	336

Table 35

Perceptions of Parents and Alumni of the Difficulty of Courses for Their Students

(Questionnaire Free Response Data: N = 183)

Course	f
Mathematics	113
English	105
Science	89
Physics	25
Thai, Thai Poetry	15
Social Studies	13
Chemistry	10
French	6
Fine Arts	4
Practical Arts	3
Biology	2
Physical Education and Health Education	2
Total Responses	387

1.10 Importance of Courses

Opinions were sought from M1, MS 3 and MS 5 students, and from parents and alumni concerning the importance of courses (or subjects). The item probing this area was phrased as follows:

"Importance of Courses

> Below is a list of courses which are generally considered to be important. Opposite each of the course names ("a" to "t") circle one number to indicate your opinion of the importance of each course in your school."

	No Importance	Low Importance	Moderate Importance	High Importance	Very High Importance
a) Thai	1	2	3	4	5
b) Foreign Languages	1	2	3	4	5
c) Social Studies	1	2	3	4	5
d) Mathematics	1	2	3	4	5
e) Science	1	2	3	4	5
t) Other Specify) ________	1	2	3	4	5

The ratings of M1, MS 3 and MS 5 students, and parents and alumni will be found in Table 36. All samples concurred that Science, Mathematics, Thai, and Health and Physical Education were among the five most important subjects. MS 3 and MS 5 rated Foreign Languages fourth, and M1 and parents and alumni ranked Social Studies third and fifth respectively. The appearance of Health and Physical Education on the list of the five most important courses is noteworthy. A summary of the most important courses as seen by the five sample groups will be found in Table 37.

Science Class, Satri Kanchanaburi "Kanchananukroh,"
Kanchanburi Province

Table 36

Perceptions of the Importance of Courses

(Student's and Parent's and Alumni Questionnaire Multiple Choice Data)

Course	Students						Parents and Alumni	
	M1		MS 3		MS 5			
	$\bar{X}$	N	$\bar{X}$	N	$\bar{X}$	N	$\bar{X}$	N
a) Thai	3.95	1414	3.90	1403	3.82	1120	4.27	183
b) Foreign Languages	3.76	1381	3.88	1353	3.78	1090	3.39	183
c) Social Studies	3.98	1409	3.67	1402	3.51	1116	3.78	183
d) Mathematics	4.10	1414	4.11	1402	3.90	1108	4.17	182
e) Science	4.04	1410	4.14	1387	4.05	1097	4.20	183
f) Fine Arts	3.42	1410	3.17	1257	3.05	910	3.41	183
g) Health & Physical Education	3.84	1398	3.77	1359	3.63	1076	3.84	181
h) Food	3.74	989	3.38	966	3.29	748	3.60	174
i) Dressmaking	3.63	914	3.17	920	3.04	710	3.20	175
j) Office Practice	3.40	701	3.09	753	2.95	656	3.21	179
k) Typing	3.39	640	3.30	746	3.20	654	3.26	179
l) Accounting	3.42	651	3.29	732	3.14	648	3.31	180
m) Planting	3.44	860	3.26	790	3.16	688	3.29	177
n) Animal Husbandry	3.35	829	3.26	788	3.11	687	3.24	177
o) Auto Mechanics	3.54	863	3.38	862	3.15	651	3.36	176
p) Electricity	3.63	965	3.51	916	3.25	677	3.60	178
q) Wood Construction	3.46	910	3.27	837	3.05	664	3.29	176
r) Metalwork	3.36	753	3.16	770	3.00	639	3.19	177
s) Drafting	3.51	1058	3.25	846	3.02	656	3.29	177
t) Other (specify)	3.52	269	3.30	194	3.15	143	3.53	60

Table 37

Perceptions of M1, MS 3, MS 5 Students, Parents and Alumni of the 6 Most Important Courses

(Questionnaire Multiple Choice Rating Data)

Course	Sums of Ranks	Students									Parents & Alumni		
		M1			MS 3			MS 5					
		Ranking	$\bar{X}$	N	Ranking	$\bar{X}$	N	Ranking	$\bar{X}$	N	Ranking	$\bar{X}$	N
1. Science	6	2	4.04	1410	1	4.14	1387	1	4.05	1097	2	4.20	183
2. Mathematics	8	1	4.10	1414	2	4.11	1402	2	3.90	1108	3	4.17	182
3. Thai	11	4	3.95	1414	3	3.90	1403	3	3.82	1120	1	4.27	183
4. Health and Physical Education	19	5	3.84	1398	5	3.77	1359	5	3.63	1076	4	3.84	181
5. Social Studies	20	3	3.98	1409	6	3.67	1402	6	3.51	1116	5	3.78	183
6. Foreign Languages	23	6	3.76	--	4	3.88	1353	4	3.78	1090	9	3.39	183

1.11 Co-curricular and Extra-curricular Activities

Responses of the sixteen principals of the sample schools concerning co-curricular or extra-curricular activities which go on in the school and involve ten or more students per year will be found in Table 38. The item was of a multiple choice plus "Other (specify)" type. Noteworthy was the high level of activity in "Future Farmers of Thailand," School Band, Boy Scouts, Junior Red Cross, and "School Musical Activities." The low frequency of mention of activities in Girl Guides, Religion Club, Conservation and Student Exchange was also interesting.

Agriculture Teacher and Acting Principal,
Sriyaphai School

Boy Scouts, Rayong Wittayakom School

Table 38

Co-Curricular and Extra-Curricular Activities in the Sixteen Sample Schools

(Multiple Choice and Free Response Data,
Principal's Questionnaire: N = 16)

Name of Activity	Number of Schools Involved
1. Future Farmers of Thailand	15
2. Subject Area Clubs	13
3. Library	13
4. School Band	13
5. Boy Scouts	13
6. Junior Red Cross	13
7. Intramural Sports	13
8. Between-School Sports	13
9. School Musical Activities	12
10. Thai Cultural/Recreational Club	11
11. Girl Scouts	9
12. School Dance	6
13. Arts and Crafts Club	6
14. Girl Guides	4
15. Religion Club	4
16. Conservation	3
17. Student Exchanges	3
18. Other	9

2. ADEQUACY AND FLEXIBILITY

2.1 Adequacy of Curriculum Objectives

Perceptions of principals and teachers concerning the adequacy of the curriculum objectives for the three curricula used in the RSS schools are presented in Table 39. While both principals and teachers perceived the objectives for all three curricula (1969 Comprehensive, 1978 Lower Secondary and 1975 Upper Secondary) to be adequate or better, principals perceived them to be significantly better than did the teachers, beyond the 0.01 level for the 1969 objectives, and at the 0.01 level for the 1975 and 1978 objectives.

Significant differences were found in perceptions of adequacy between pairs of curricula. Principals perceived the differences between the 1969 and 1978, and between the 1969 and 1975 objectives to be significant beyond the 0.01 level, but saw no difference between the 1975 and 1978 objectives. Among the teachers, significant differences in adequacy of objectives were found between 1969 and 1978, and between 1969 and 1975, but little difference was found between the 1975 and 1978 objectives.

In sum, principals and teachers differed significantly in six out of nine between-group and within-group comparisons of the adequacy of the various curriculum objectives, but both groups favored the 1969 Comprehensive Curriculum objectives over the 1975 and 1978 objectives.

Mushroom Growing, Satri Kanchanaburi
"Kanchananukroh"

Table 39

Perceptions of Principals and Teachers Concerning Adequacy of Curriculum Objectives for 1969, 1978 and 1975 Curricula

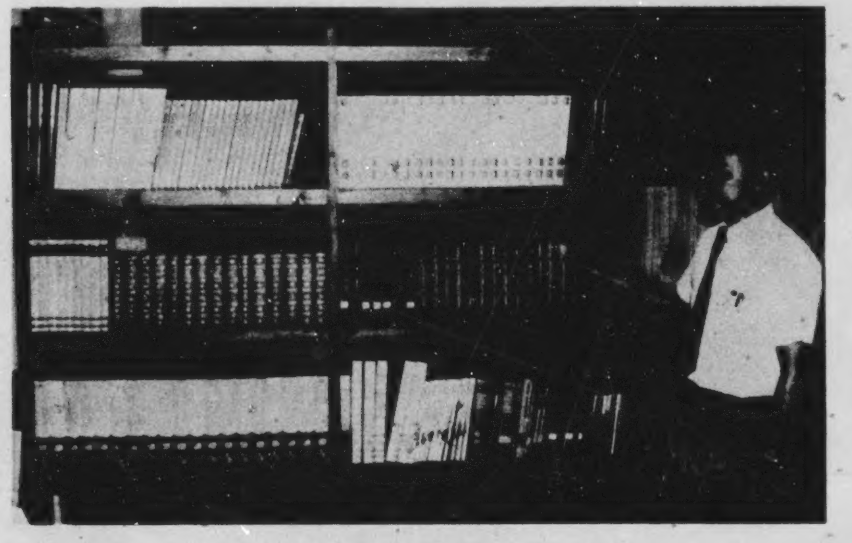
(Principal's and Teacher's Questionnaire Data)

Type of Curriculum	Perceived Adequacy of Objectives						Principal-Teacher Differences	Comparison of Pairs of Curricula		
	Principals			Teachers					Principals	Teachers
	$\bar{X}$	SD	N	$\bar{X}$	SD	N	p	Curriculum Pairs	p	p
(a) Comprehensive (1969)	4.13	0.62	16	2.95	0.83	1033	0.00	1969 & 1978	0.00	0.00
(b) Lower Secondary (1978)	3.44	0.73	16	2.88	0.79	1033	0.00	1969 & 1975	0.00	0.03
(c) Upper Secondary (1975)	3.44	0.81	16	2.89	0.78	1023	0.00	1978 & 1975	1.00	0.24

2.2 Adequacy of Course Content

Perceptions of principals and teachers concerning the adequacy of course content in terms of meeting the stated objectives for the RSS schools are presented in Table 40. While both principals and teachers considered the course content in all three curricula (1969, 1978 and 1975) to be adequate, the principals considered the content to be more adequate than the teachers, with differences significant beyond the 0.01 level for all three. Significant differences beyond the 0.01 level were also found in perceptions of adequacy of content between pairs of curricula. Both principals and teachers perceived the 1969 course content to be significantly more adequate than that of either the 1978 or 1975 curricula. However, no significant differences were found in either group between perceptions of adequacy of content of the 1978 and 1975 curricula.

It is quite clear that principals and teachers consider the course content of the 1969 curriculum significantly better than that in the other two curricula, and principals rated the content significantly higher than did teachers. This might be due to the fact that principals see the curriculum in the context of the whole school, whereas teachers see the curriculum in terms of their own subject specializations.



Principal and Library Reference Books,
Phota Wattananseni School

Table 40

Perceptions of Principals and Teachers Concerning Adequacy of Course Content for the 1969, 1978 and 1975 Curricula

(Principal's and Teacher's Questionnaire Data)

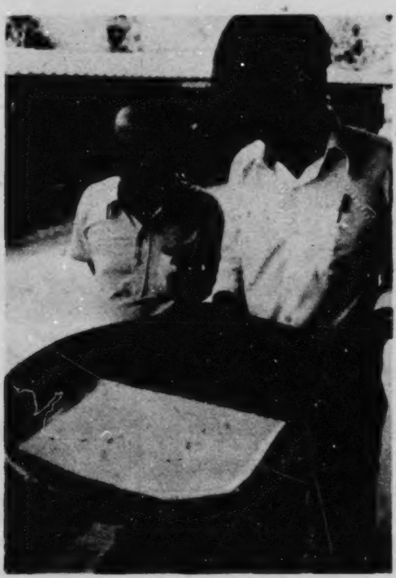
Type of Curriculum	Perceived Adequacy of Course Content						Principal-Teacher Differences	Comparison of Pairs of Curricula		
	Principals			Teachers					Principals	Teachers
	$\bar{X}$	SD	N	$\bar{X}$	SD	N	p	Curriculum Pairs	p	p
(a) Comprehensive (1969)	4.31	0.60	16	3.02	0.81	1033	0.00	1969 & 1978	0.00	0.00
(b) Lower Secondary (1978)	3.56	0.73	16	2.94	0.83	1024	0.00	1969 & 1975	0.00	0.00
(c) Upper Secondary (1975)	3.69	0.48	16	2.95	0.80	1000	0.00	1978 & 1975	0.33	0.26

2.3 Meeting Course Objectives

Perceptions of principals and teachers concerning the extent to which the course objectives of the curricula for the RSS schools are currently being met in their schools are presented in Table 41. For all three curricula (1969, 1978, 1975) principals perceived the objectives being met to a significantly greater extent than did teachers, with the differences being significant beyond the 0.01 level in all three curricula.

Differences between four of the six pairs of comparisons between curricula, were found, significant beyond the 0.01 level. Principals and teachers perceived the objectives of the 1969 Curriculum being met more adequately than those of the 1978 Curriculum. Principals alone perceived the objectives being met better in the 1969 than in the 1978 curricula, and teachers, in the 1975 Curriculum better than in the 1978 one. These findings seem to indicate a need for a further study of the nature of the objectives in the context of the community and school offerings.

Once again, a response pattern appeared in which principals rated items higher than did teachers.



Raising Silkworms, Pua School

Table 41

Perceptions of Principals and Teachers of the Extent to Which Course Objectives Were Being Met in Their Schools

(Principal's and Teacher's Questionnaire Data)

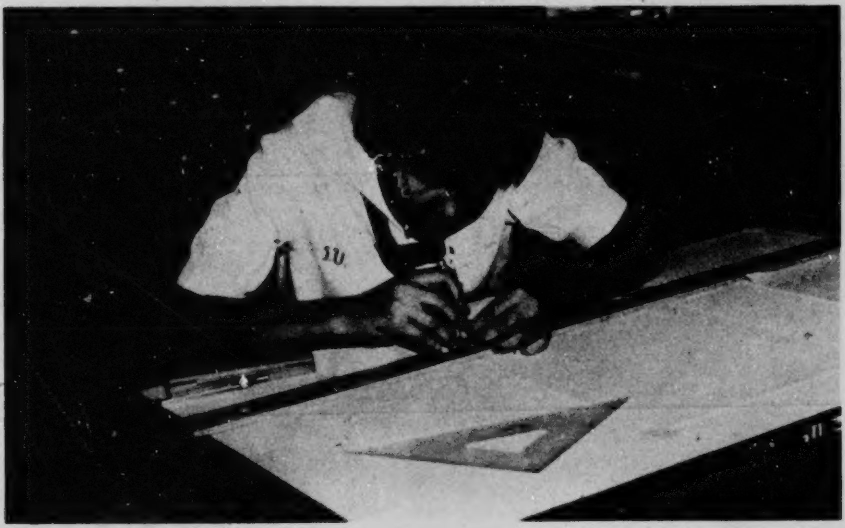
Type of Curriculum	Perceived Extent to Which Course Objectives Were Being Met						Principal-Teacher Differences	Comparison of Pairs of Curricula		
	Principals			Teachers					Principals	Teachers
	$\bar{X}$	SD	N	$\bar{X}$	SD	N	p	Curriculum Pairs	p	p
(a) Comprehensive (1969)	4.00	0.36	16	2.91	0.81	1009	0.00	1969 & 1978	0.00	0.00
(b) Lower Secondary (1978)	3.37	0.72	16	2.77	0.78	1009	0.00	1969 & 1975	0.00	0.90
(c) Upper Secondary (1975)	3.56	0.51	16	2.90	0.80	980	0.00	1978 & 1975	0.38	0.00

2.4 Appropriateness of Curricula

Perceptions of principals and teachers of the appropriateness of the curricula for the students in their schools are presented in Table 42. While both principals and teachers perceived the three curricula (1969, 1978 and 1975) to be above the mid-point on the scale of appropriateness, principals' ratings were significantly higher (beyond the 0.01 level) than the teachers' ratings on all three curricula.

Significant differences were found between pairs of curricula in perceptions of their appropriateness. Principals perceived the 1969 Curriculum to be more appropriate than the 1978 Curriculum, with the difference significant beyond the 0.01 level; the 1969 to be better than the 1975 Curriculum, and the 1978 to be better than the 1975, both comparisons significant at the 0.03 level. Teachers perceived the 1969 Curriculum to be better than both the 1978 and 1975 curricula, significant beyond the 0.01 level, but saw no significant difference between the appropriateness of the 1978 and 1975 curricula.

In sum, the 1969 Curriculum was again perceived as superior to the 1978 and 1975 curricula, with some differences seen between the latter two. The response pattern of higher ratings by principals than by teachers was again observed.



Girl Drafting Student, Phota Wattanaseni School

Table 42

Perceptions of Principals and Teachers of the Appropriateness of the Curricula in Their Schools

(Principal's and Teacher's Questionnaire Data)

Type of Curriculum	Perceived Appropriateness of Curriculum						Principal-Teacher Differences	Comparison of Pairs of Curricula		
	Principals			Teachers					Principals	Teachers
	$\bar{X}$	SD	N	$\bar{X}$	SD	N	p	Curriculum Pairs	p	p
(a) Comprehensive (1969)	4.37	0.50	16	3.28	0.83	1019	0.00	1969 & 1978	0.00	0.00
(b) Lower Secondary (1978)	3.62	0.62	16	3.11	0.83	1019	0.01	1969 & 1975	0.03	0.00
(c) Upper Secondary (1975)	4.00	0.63	16	3.15	0.81	984	0.00	1978 & 1975	0.03	0.18

2.5 Provision for Differing Intellectual Abilities

Perceptions of students, teachers, M1, MS 3 and MS 5 students concerning the extent to which their school meets the needs of students of differing intellectual abilities is presented in Table 43. Marked differences (significant beyond the 0.01 level), will be noted between the various sample groups. The range of standard deviations indicates a wide variety of perceptions within the sample groups themselves. Principals, teachers and MS 5 students saw the schools meeting the needs of average-ability students best, whereas M1 and MS 3 students saw the schools serving the needs of the above-average ability students best. Principals and teachers perceived the schools meeting the needs of the below average student at a level slightly above the mid-point, but all students saw the below-average group as being served below the mid-point in the ratings. MS 3 students were particularly low in their rating of the school's ability to meet the needs of this group of students.

In sum, the sample groups perceived the schools providing adequately or better for students of average or above-average intellectual ability. Principals' very high rating of provision for the average ability student is noteworthy. It could be hypothesized that students think in terms of themselves, but that principals think of their total impression of the school.

Science Class, Pua School

Table 43

Extent to Which the Curriculum Meets the Needs of Students of Differing Intellectual Abilities

(Principal, Teacher, M1, MS 3 and MS 5 Questionnaire Data)

Ability Level of Students	Principals			Teachers			M1 Students			MS 3 Students			MS 5 Students		
	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N
1) Above average ability students	3.81	0.98	16	3.50	0.99	1035	3.75	0.99	1355	3.64	1.01	1328	3.35	1.08	1077
2) Average ability students	4.19	0.65	16	3.57	0.82	1038	3.45	0.85	1348	3.51	0.87	1357	3.40	0.95	1091
3) Below average ability students	3.31	1.25	16	3.18	1.03	1028	2.90	1.22	1294	2.10	1.20	1308	2.93	1.19	1064

2.6 Provision for Individual Differences: Miscellaneous

Perceptions of principals and teachers of the extent to which their schools provided for miscellaneous individual differences in the students in their schools is presented in Table 44. Principals and teachers perceived that their schools provided for differences at a level above the mid-point on the scale, insofar as socio-economic status, religion, intelligence, physical characteristics and emotional characteristics were concerned. Teachers, however, saw their schools as providing for students with differing language background as somewhat below the mid-point. Considerable variation in perceptions was noted among the principals, where the standard deviation rose as high as 1.63 on provision for religious differences. The largest variation in teachers' ratings was also seen in this category of differences.

In sum, principals and teachers perceive their schools as doing an above-average piece of work in providing for individual differences in the categories set forth in the questionnaires.

Table 44

Extent to Which the Schools Provided for
Individual Differences: Miscellaneous
(Principal's and Teacher's Questionnaire Data)

Type of Individual Difference	Principals (N = 16)			Teachers (N = 1069)		
	$\bar{X}$	SD	N	$\bar{X}$	SD	N
1) Socio-economic status	3.69	0.70	16	3.01	0.89	1039
2) Language background	3.56	1.36	16	2.88	0.93	1037
3) Religion	3.50	1.63	16	3.12	1.10	1037
4) Intelligence	3.75	0.86	16	3.39	0.80	1036
5) Physical Characteristics	3.62	1.15	16	3.24	0.85	1036
6) Emotional Characteristics	3.31	1.19	16	3.02	0.85	1036

2.7 Development of Skills and Abilities

Perceptions of principals, teachers, M1, MS 3 and MS 5 students, and of parents and alumni, of the extent to which the program in their school provides students with the skills and abilities they require for (a) further education, and (b) employment, are presented in Table 45. All sample groups agreed that the schools offered the students average or well-above average opportunities to develop their skills and abilities for either further studies or for employment. However, all perceived the school offered a better opportunity for further education (a mean rating of 3.87 across all groups) than for employment (mean rating of 3.65). These differences were significant beyond the 0.01 level for principals, teachers, M1 and MS 5 students, and parents and alumni, but were not significant for MS 3 students.

Significant differences were also found between groups, beyond the 0.01 level, for both categories. Variance occurred within groups, most notably in the MS 5 sample, whose responses showed a standard deviation of 1.17, the highest among the samples. This might be a reflection of the typical maturing and development of independent thinking of older secondary school students. Despite all these differences, it is clear that all sample groups perceived their schools to be offering an average or better-than-average opportunity for students to develop skills and abilities for either further education or employment.

Comments summarized from the interview schedules for all samples tended to confirm the results yielded by the questionnaire data.

School Co-operative Store, Sriyaphai School

Table 45

Development of Skills and Abilities for Further Education or Employment

(Principal, Teacher, M1, MS 3, MS 5, and Parents and Alumni Questionnaire Data)

	Principals			Teachers			M1 Students			MS 3 Students			MS 5 Students			Parents and Alumni		
	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N
For further education	4.12	0.81	16	3.78	0.91	1040	4.08	0.86	1382	3.80	0.97	1387	3.77	1.14	1123	3.87	0.95	180
For employment	3.12	0.81	16	3.34	1.04	1042	3.95	0.93	1365	3.80	1.00	1376	3.41	1.17	1100	3.59	1.05	179
	$p = 0.000$			$p = 0.000$			$p = 0.000$			$p = 0.050$			$p = 0.000$			$p = 0.000$		

2.8 Curriculum and Student Needs (Curriculum Modifications)

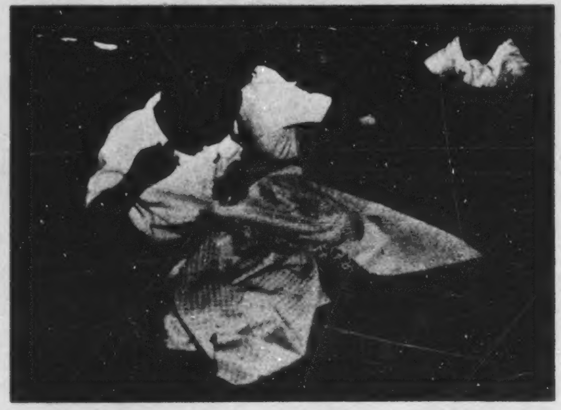
Perceptions of principals and teachers of the extent to which the curriculum is modified to meet student needs is presented in Table 46. Both samples agreed that the curriculum in their schools was modified at an average or above average level in order to meet student needs. Principals rated this item higher than did teachers, following the response pattern noted previously, the difference being significant beyond the 0.01 level.

Table 46

Curriculum and Student Needs
(Curriculum Modifications)

(Principal's and Teacher's Questionnaire Data)

Item	Principals			Teachers			Principal-Teacher Difference
	$\bar{X}$	SD	N	$\bar{X}$	SD	N	p
To what extent is the curriculum in your school modified to meet the needs of students?	3.75	0.45	16	3.19	0.65	1050	0.01



Practical Arts Boys' Sewing Class, Mae-Tang School

2.9 Curriculum and Local Needs

Perceptions of principals and teachers of how adequately the curriculum of their schools meets local needs are presented in Table 47. Principals perceived the three curricula in use in their schools to be meeting local needs at an above-average level, but teachers saw the curricula meeting needs at a below-average level. The differences were significant in all three curricula beyond the 0.01 level. In terms of comparisons of pairs of curricula, principals perceived no significant differences between curricula in this item, but teachers saw the 1969 Curriculum as significantly better than either the 1978 or the 1975 curricula. The 1978 Curriculum was seen as slightly better than the 1978 in terms of meeting local needs ($p = 0.05$).

In sum, principals once again demonstrated a more positive response to a curricular item than did teachers, and the 1969 Curriculum emerged as preferred by both samples.

Chicks in Animal Husbandry Program,
Phota Wattanaseni School

Table 47

Curriculum and Local Needs

(Principal's and Teacher's Questionnaire Data)

Type of Curriculum	Adequacy of Curriculum in Meeting Local Needs						Principal-Teacher Differences	Comparison of Pairs of Curricula		
	Principal			Teacher					Principal	Teacher
	$\bar{X}$	SD	N	$\bar{X}$	SD	N	p	Curriculum Pairs	p	p
(a) Comprehensive (1969)	3.75	0.58	16	2.90	0.82	1024	0.00	1969 & 1978	0.27	0.00
(b) Lower Secondary (1978)	3.56	0.89	16	2.83	0.80	1007	0.00	1969 & 1975	0.20	0.00
(c) Upper Secondary (1975)	3.44	0.63	16	2.78	0.79	972	0.00	1978 & 1975	0.50	0.05

2.10 Adequacy of Learning Materials

Perceptions of principals, teachers, M1, MS 3 and MS 5 students, and of parents and alumni, concerning the extent to which there are adequate quantities of learning materials to support the courses in their schools, are presented in Table 48. Concerning textbooks, M1 and MS 5 students, and parents and alumni thought these available in adequate quantities. Concerning library and technical books, only M1 and MS 3 students thought the supply adequate. Encyclopaedias and dictionaries were considered by all student groups to be adequately supplied, but not so by the other groups. Leisure reading books and magazines were considered adequate by principals, all students and parents and alumni, but not by teachers. Films and filmstrips were considered by all groups to be quite or very _in_adequately supplied, especially by teachers. Responses in the "Other" category were enormous, the vast majority of which were covered later in the questionnaires under the items entitled "Adequacy of Facilities, Supplies, and Tools," or "Adequacy of School Site, Buildings, Equipment and Furniture." However, applicable responses under "Other" in "Instructional Materials" included such materials as: reference textbooks (in many subjects); tape; varieties of pictures; music; models; "teaching aids," atlases; globes, "teachers' handbooks"; slides.

In general, M1 students were the most satisfied with the quantities of learning materials, followed by MS 3 and MS 5 students, then parents and alumni, and principals. Teachers were the least satisfied with the materials available, considering them inadequate in all six categories. However, responses showed rather large standard deviations within groups, indicating a considerable variety of opinion among members of each sample, especially among students and parents. Overall differences between the six sample groups were significant beyond the 0.01 level. It is possible that many respondents did not know that the Project Office supplied only hardware, not paper or plastic materials.

Table 48

Perceptions of Principals, Teachers, M1, MS 3 and MS 5 Students, and of Parents and Alumni Concerning Adequacy of Learning Materials

(Questionnaire Rating and Free Response Data)

Materials	Principals			Teachers			M1 Students			MS 3 Students			MS 5 Students			Parents and Alumni		
	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N
a) Textbooks	2.75	1.00	16	2.41	1.03	1046	3.73	0.95	1411	2.99	1.17	1407	3.29	1.12	1114	3.05	1.03	180
b) Library technical books	2.44	0.81	16	2.09	1.02	1047	3.67	0.99	1408	3.21	1.26	1409	2.97	1.23	1117	2.93	1.17	180
c) Encyclopaedias, dictionaries	2.50	1.15	16	2.16	0.99	1040	3.27	1.02	1393	3.20	1.21	1390	3.13	1.22	1112	2.57	1.13	176
d) Leisure reading books, magazines	3.06	1.06	16	2.69	1.09	1039	3.33	1.02	1397	3.46	1.19	1404	3.50	1.13	1123	3.07	1.02	178
e) Films and filmstrips	2.00	0.82	16	1.85	0.89	1037	2.81	1.16	1389	2.56	1.19	1402	2.46	1.22	1116	2.25	1.06	176
f) Other instructional materials (specify)	2.78	1.10	11	1.46	0.89	247	3.32	1.19	759	2.91	1.18	1296	2:78	1.19	1019	2.05	1.16	21

When the free responses to the "Other" (Specify) category were tabulated and analyzed, it was found that respondents tended to identify specific equipment and materials shortages in specific subject areas. When the perceptions of all five respondent groups were taken collectively, the areas identified as having the greatest shortages of equipment and/or learning materials were Science, Physical Education, Industrial Arts, Library, Agriculture and Music. Respondents also identified the following general equipment shortages: audio-visual equipment general; maps, charts, globes and atlases; slide, movie and overhead projectors; teaching aids general, and tape recorders.

Library, Singburi School, Singburi Province

Band Practice, Pua School

2.11 Payment for Learning Materials

The percentages of learning materials costs that principals indicated were paid for by the Department of General Education, the school, the students, and others are summarized in Table 49. The costs of textbooks were paid primarily by the students (65%) and the Office of Special Projects of the Department of General Education (28%) (through the school). Sixty-eight percent or more of the costs of the following categories of learning materials were paid for by the school: library and technical books; encyclopaedias and dictionaries; leisure reading books; films and filmstrips; and other instructional materials. However, it should be noted that schools raise their funds through student fees. Therefore, students appear to be paying the majority of the costs of learning materials through direct purchases (e.g. textbooks) or through the payment of student fees.

Table 49

Sources of Payment for Learning Materials

(Principal's Questionnaire Data)

Type of materials	Source of Payment (Principals: N = 16)				
	DGE %	School* %	Students %	Other** %	Total %
a) Textbooks	3.8	28.4	64.5	3.3	100
b) Library technical books	12.7	76.7	5.8	4.8	100
c) Encyclopaedias, dictionaries	3.6	71.2	8.4	16.8	100
d) Leisure reading	5.5	83.5	4.1	6.9	100
e) Films and filmstrips	28.2	68.2	0.2	3.4	100
f) Other	25.5	70.0	1.0	3.5	100
Tapes Physical Education Science Practical Arts Sound Equipment Slides and tapes					

* Schools raise their funds through student fees.

** Largely from donations from parents and the community or other sources.

134

3. TEACHERS

3.1 Familiarity With Teaching Methods

Perceptions of principals and teachers of the extent to which staff in their schools are familiar with a variety of teaching methods appropriate for instruction in the various major subject areas are presented in Table 50. Both samples rated teachers' familiarity with their teaching specializations above the mid-point on the scale, some well above the mid-point. Principals again gave consistently higher ratings than did teachers. The grand mean of principals' ratings was 3.94 and of teachers' ratings, 3.35. The number of teachers reported as teaching the various subjects was computed from data presented in other items of the questionnaire.

Table 50

Staff's Familiarity With Teaching Methods

(Principal's and Teacher's Questionnaire Data)

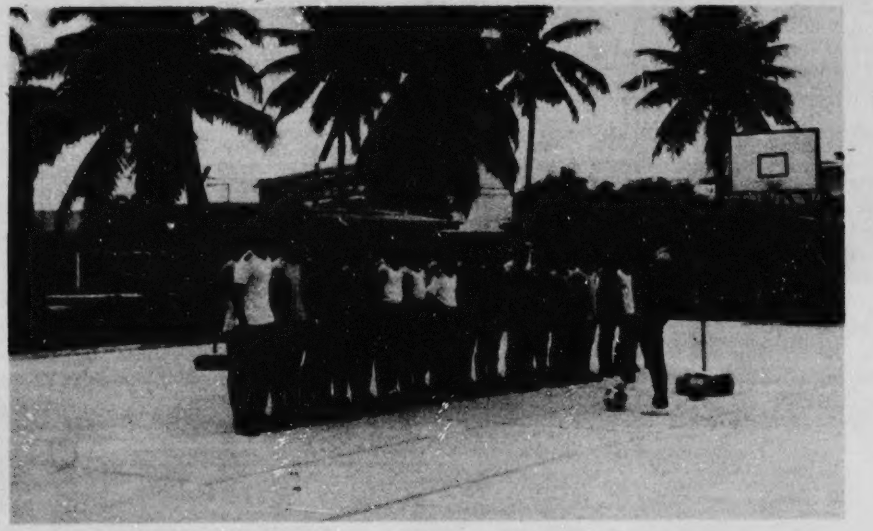
Subject Areas	Principals $\bar{X}$	Principals N	Teachers $\bar{X}$	Teachers N
Thai	4.00	16	3.30	117
Foreign Languages	3.75	16	3.27	166
Social Studies	3.94	16	3.29	144
Mathematics	4.00	16	3.39	117
Science	4.19	16	3.24	128
Fine Arts	3.81	16	3.33	42
Practical Arts	4.00	16	3.43	258
Health and Physcial Education	3.94	16	3.48	79
Guidance	3.81	16	3.42	24
GRAND MEAN	3.94		3.35	

3.2 Familiarity of Teachers With the Curriculum

Perceptions of principals and teachers concerning the extent to which the teaching staff in their school is familiar with the Comprehensive, Lower Secondary and Upper Secondary curricula are presented in Table 51. Both samples rated their staff's familiarity with the various curricula above the mid-point on the scale, with the exception of the teachers' rating of the 1978 Lower Secondary Curriculum, which fell somewhat below the mid-point. This is understandable because of the newness of that particular curriculum. Principals again gave ratings considerably higher than did teachers, ($p < 0.01$) for the 1969 and 1978 curricula, and beyond the 0.03 level for the 1975 one.

Comparison of pairs of curricula within groups reveals that principals saw little difference in familiarity of the teachers with any of the three curricula, but teachers perceived themselves as significantly more familiar with the 1969 and 1975 curricula ($p < 0.00$) than with the 1978 one ($p < 0.40$).

In sum, principals were quite positive about the knowledge of their teachers of the three curricula, but teachers were less certain, particularly about the 1978 Lower Secondary one.



Physical Education Class, Sriyaphai School

Table 51

Familiarity of Teachers With the Curriculum

(Principal's and Teacher's Questionnaire Data)

Type of Curriculum	Perceptions of Familiarity of Teachers With the Curricula						Principal-Teacher Differences	Comparison of Pairs of Curricula		
	Principals			Teachers					Principals	Teachers
	$\bar{X}$	SD	N	$\bar{X}$	SD	N	p	Curriculum Pairs	p	p
(a) Comprehensive (1969)	3.81	0.65	16	3.05	0.92	1027	0.00	1969 & 1978	0.08	0.00
(b) Lower Secondary (1978)	3.44	0.63	16	2.77	0.94	1002	0.00	1969 & 1975	0.33	0.40
(c) Upper Secondary (1975)	3.63	0.88	16	3.08	1.01	1000	0.03	1978 & 1975	0.48	0.00

4. STUDENTS AND THE CURRICULUM

Since students are consumers of the curriculum, policies and practices having to do with student admission, promotion, assessment, discipline, reporting, dropping out, transferring, guidance and counselling, are of a high order of importance in the operation of a school. This part of the report will deal with the topic under these headings: admission criteria; guidance program; assessment of students; drop-outs; transfers; and part-time employment.

4.1 Student Admission Criteria

Rank-ordering of principals of admission criteria used in their schools for MS 1 and MS 4 students will be found in Table 52. An entrance examination is by far the most frequently used criterion for both grades. For MS 1, residence and interviews are used occasionally, followed by previous school record and recommendation of previous school. Medical reasons and school quotas are the least used criterion. MS 4 used interviews almost as often as entrance examinations, then previous school record, and recommendation of the previous school, and finally, medical or quota considerations.

Parents and alumni, on interview, revealed that 19 of 31 respondents thought entrance examinations to be a good system, with seven others preferring an interview to check on behavior. Only one parent thought entrance should be restricted to students living in the district; one wanted an aptitude test. Miscellaneous admission criteria mentioned on interviews included "special concessions" for those students whose parents donated substantially to the school; need on the part of the students; medical examination; special admission if from a previous school, based on 80% of year's work, plus an interview; random selection of applicants if places insufficient. In two schools it was stated the schools could take all applicants, especially M1.

Table 52

Rank-ordering of Admission Practices Used in RSS Schools

(Principal's Questionnaire Data: N = 16)

Criterion	MS 1 Admissions		MS 4 Admissions	
	f	Ranking	f	Ranking
Entrance examinations	15	1	15	1
Residence	5	2	4	4
Interview	5	2	12	2
Previous school record	4	3	5	3
Recommendation of previous school	4	3	5	3
Other (medical; quota)	2	4	2	5

Because there has usually been a shortage of places in the CIDA and RSS schools, experiments have been conducted using other admission criteria than entrance examinations. The following have been tried and rejected, and entrance examinations re-instituted:

Criterion	Reason for Rejection
1. Drawing lots for places	1. Parents could not plan ahead
2. Aptitude tests	2. Coaching for tests appeared
3. Admit 75% without exam, 25% with exam	3. Students changed registration of domicile or actual domicile
4. Borrowing university examinations	4. Exams unsatisfactory for secondary students
5. Starting educational zones	5. Zones distant from school (not co-terminous boundaries with school catchment area)

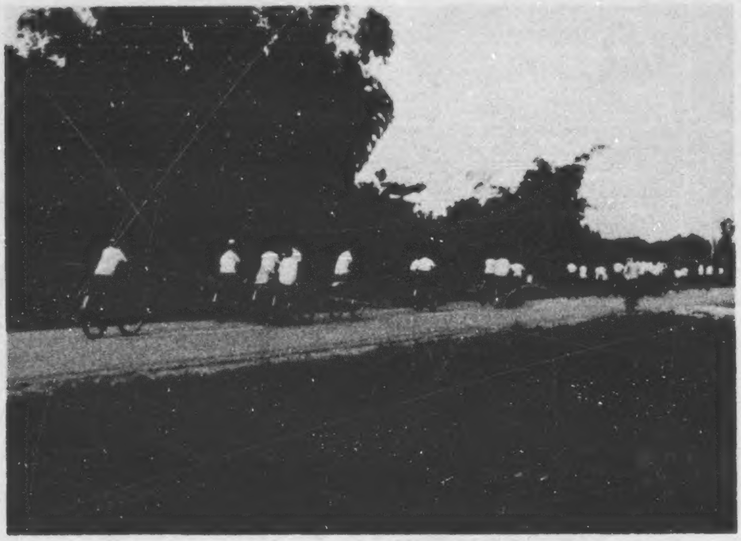
4.2 Adequacy of the Guidance Program

Perceptions of the adequacy of the guidance program as seen by principals, teachers, students and parents and alumni is presented in Table 53. Grand means of the eight components in this item showed ratings above the mid-point for guidance services in course selection, selection for scholarships, students' financial assistance, helping students who have learning problems, career counselling; but below the mid-point in personal guidance, "Other," and psychological testing. Wide variations existed between the ratings of groups ($p < 0.00$). M1 students gave the highest ratings, followed by principals, parents, MS 3 students, MS 5 students, and teachers.

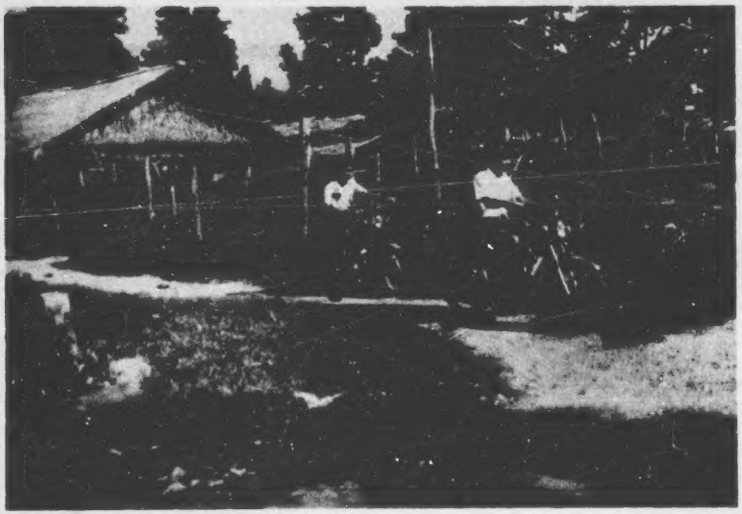
The low rating given psychological testing may be due to the fact that the schools have non-standardized aptitude and interest tests only, given at the discretion of the guidance counsellor(s) in the schools. The high ratings of the M1 students may be invalid because of the students' newness to the school (questionnaires were completed when M1 students had been in the RSS school for about two months following elementary school).

Analysis of the "Other (specify)" category yielded a considerable response from pupils and teachers, but less from principals and parents, as will be noted from Table 53. The responses were puzzling. A large proportion of them repeated in direct or oblique form categories "a" to "g" immediately above in the item. However, among the students, "Other" did include the following: first aid; student orientation; better guidance and counselling room; looking for accommodation for students; providing a newsletter and magazines; how to manage sports competitions, co-op work and music; how to use the library; money for lunch programs; field trips; recreational area; religion; helping students pass re-examination; how to work; how to learn.

Teachers included in their lists of "Other" aspects of school life which they conceive as falling under "Guidance Services," the following: "health investigation; insufficient personnel; teachers don't know problems of problem children; seeking part-time jobs for students; guest lecturers from outside; providing cafeteria; personnel don't possess guidance certificate; consulting among teachers; working with caretakers; providing practicum for trainee teachers; students dare not come to use guidance and counselling." It appears that this category in the item was used as a "complaints" column, some of which would more properly fall under "administration" than "guidance and counselling." The findings indicate a need for clarification among teachers of the role and responsibility of a guidance department and guidance counsellors.



"Going Home," Pan Phrao School



"Going Home," Pua School

Table 53

Adequacy of the Guidance Program

(Principal's, Teacher's, M1, MS 3, MS 5 Student's, and Parent's and Alumni Questionnaire Data)

Guidance Area			Principals			Teachers			M1 Students			MS 3 Students			MS 5 Students			Parents and Alumn		
	N	Grand Mean	X̄	SD	N	X̄	SD	N	X̄	SD	N	X̄	SD	N	X̄	SD	N	X̄	SD	N
a) Career Counselling	5182	3.03	3.25	0.45	16	2.66	0.96	1032	3.40	0.90	1414	3.11	1.01	1413	2.80	1.02	1129	3.30	0.99	181
b) Personal Guidance	5169	2.95	3.06	0.85	16	2.66	0.93	1028	3.46	1.04	1409	2.90	1.12	1409	2.65	1.12	1126	2.93	1.02	181
c) Course Selection	5165	3.51	4.06	0.57	16	3.07	0.93	1031	3.85	0.95	1408	3.63	1.02	1404	3.33	1.08	1126	3.62	0.97	180
d) Learning Problems	5172	3.26	3.56	0.73	16	2.82	1.00	1027	3.73	0.99	1409	3.26	1.13	1413	3.06	1.18	1128	3.38	1.09	179
e) Psychological Testing	5117	2.30	2.19	0.83	16	2.16	0.90	1022	2.07	1.08	1382	2.18	1.04	1399	1.87	0.96	1121	2.47	1.04	177
f) Scholarship Selection	5179	3.30	3.94	0.77	16	3.09	0.97	1031	3.66	1.05	1409	3.19	1.10	1411	3.18	1.13	1131	3.34	1.12	181
g) Students' Financial Assistance	5169	3.28	3.31	1.01	16	2.97	1.08	1030	3.61	1.08	1403	3.21	1.18	1409	3.20	1.22	1132	3.28	1.13	179
Other	1102	2.86	2.50	1.19	8	2.58	1.30	154	3.49	1.02	355	2.75	1.28	315	2.32	1.20	256	2.57	0.94	14
Grand Means		3.23				2.75			3.51			3.03			2.80			3.11		

4.3 Student Assessment

Under the topic "Student Assessment" will be discussed: principals' and teachers' perceptions of who prepares examinations; who assigns students grades; source of pass/fail decisions; and reporting of student marks.

4.3.1 Preparation of Examinations.

Perceptions of principals and teachers concerning who prepares examinations will be found in Table 54. Principals perceived more preparation by groups of teachers than did teachers, over half of whom saw individual teachers preparing examinations. A large number of respondents did not answer these queries. The findings indicate a need for closer study of this matter on an individual school basis.

Table 54

Perceptions of Principals and Teachers Concerning Who Prepares Examinations

(Principal's and Teacher's Questionnaire Data)

Preparer	Principals (N = 16)		Teachers (N = 1069)	
	f	No Response	f	No Response
Individual teachers	5	11	621	448
Department Heads	--	16	15	1054
Groups of teachers	14	2	454	615
Other: Combinations	--	16	14	1055

4.3.2 Assignment of Student Grades.

Perceptions of principals and teachers concerning who assigns student grades will be found in Table 55. Principals perceived a higher number of student grades being assigned by groups of teachers than did the teachers themselves, who saw almost equal numbers of grades being assigned by individual teachers and by groups. Again there was a large number of respondents who did not complete this item.

Table 55

Perceptions of Principals and Teachers Concerning Who Assigns Student Grades

(Principal's and Teacher's Questionnaire Data)

Assignor	Principals (N = 16)		Teachers (N = 1069)	
	f	No Response	f	No Response
Individual teachers	5	11	482	587
Department Heads	--	16	88	981
Groups of teachers	13	3	483	586
Other: Combinations	--	16	68	1001

4.3.3 Source of Pass/Fail Decisions. Perceptions of principals and teachers concerning the source of pass/fail decisions will be found in Table 56. Interesting differences of opinion were found. Principals perceived that they had the greatest influence on the decisions, whereas more than half of the teachers perceived that they had the greatest influence.

Free response data indicated that perceptions of the locus of pass/fail decision were ranked in this order: (1) teachers or instructors, (2) instructors and Department Heads, (3) teachers and evaluation personnel, (4) administrators, (5) other combinations of administrators and staff. According to documentary evidence from the Office of Special Projects (1980), for all three curricula (1969, 1978 and 1975) only principals have authority to make pass/fail decisions on students' achievement. In practice, each school principal delegates his authority to teachers or groups of teachers who teach the same courses. They prepare tests, give marks and assign grades to students under the supervision of each department head. If there are problems, the school's academic committee, composed of the principal, academic assistant principal, all department heads and the school evaluation officer will have a meeting and make a decision, but it is in the name of the principal.

Table 56

Perceptions of Principals and Teachers Concerning the Source of Pass/Fail Decisions

(Principal's and Teacher's Questionnaire Data)

Source of Decision	Principals (N = 16)		Teachers (N = 1069)	
	f	No Response	f	No Response
Teachers	5	11	584	485
Department Head	5	11	109	960
School Administration	9	7	302	767

Ministry of Education Regulations concerning student evaluation for the various curricula in use in government secondary schools in 1980 will be found in Appendix G.

4.4 Reporting Student Marks to Parents

Of the sixteen principals, fifteen used the report card exclusively, and one also used the scheduled parent-teacher interview to report student marks to parents. However, parents reported the use of the parent-teacher interview as much higher than principals, with 174 report cards to 47 parent-teacher interviews. It could be concluded that teachers were independently using the parent-teacher interview on an individual basis to a fair degree. Twelve of fifteen principals reported marks to parents twice per year, and three schools reported to parents four times per year.

4.5 Drop-outs

In this study, a drop-out is defined as a student who leaves the school before completing MS 3 or MS 5, and is not in attendance at any other school. This topic will be discussed under the headings: principals' perceptions of the reasons for drop-outs; teachers' perceptions of the reasons for drop-outs; parents' experience with drop-outs from their home.

4.5.1 Number of Drop-outs, by Reasons (Principals' perceptions).

The number of drop-outs and principals' perceptions of the reasons for these, are presented in Table . The absolute numbers, either Lower or Upper Secondary or combined, were a very small proportion (1.52%) of the total student population of 32,195 in the RSS schools at the time of the study. Comparative documentary data (OSP, 1980), for Bangkok schools and the nation in 1977 are shown in Table 58. The composite proportion for Lower Secondary in the nation was 2.24%, and for Bangkok schools, 2.09%. Thus the RSS schools compared very favorably with Bangkok schools and other schools in the nation in terms of drop-outs taken across MS 1 to MS 5. MS 3 and MS 5 have the lowest proportions.

Concerning principals' perceptions of the reasons for drop-outs in the Lower Secondary level of RSS schools, the first five, in order, were: change of residence and not attending school; employment; student's help needed at home; disciplinary problems; and financial reasons. At the Upper Secondary level, the first five reasons, in order, were reported as: change of residence and not attending school; illness; financial reasons; employment and student's help needed at home (equal); disciplinary problems. In general, it can be said that the holding power of the government secondary schools in the nation, Bangkok, and in the RSS Project was very high, but taken across both Lower and Upper Secondary grades, highest in the RSS schools.

Table 57

Principals' Reports of the Number of
Drop-outs in Their Schools, by Level and Reason
1978 School Year

(Principal's Questionnaire Multiple Choice Data)

Reason for Dropping Out	Lower Secondary		Upper Secondary	
	N	Percent	N	Percent
1. Disciplinary problem	31	8.9	11	7.7
2. Financial reasons	28	8.0	17	12.0
3. Illness	21	6.0	19	13.4
4. Lack of interest in school	27	7.8	9	6.3
5. Marriage	26	7.5	17	12.0
6. Employment	57	16.4	15	10.6
7. Poor achievement	24	6.9	9	6.3
8. Students' help needed at home	38	10.9	15	10.6
9. Change of residence and not attending school	78	22.4	26	18.3
10. Other: not known	18	5.2	4	2.8
Total	348	100.0%	142	100.0%
Percentage of Total RSS School Population (N = 32,195)	1.08%		0.44%	
Composite Percentage	1.52%			

Table 58

Number of Lower and Upper Government Secondary School Drop-outs, Bangkok and Nation-wide, School Year 1977

(Office of Special Projects Data, 1980)

	Nation-wide			Bangkok		
	MS 1	MS 3	MS 5	MS 1	MS 3	MS 5
Total Number of Students	253,106	182,780	52,006	42,639	32,544	19,073
Number of Drop-outs	7,063	2,625	1,249	1,227	444	302
Percentage of Drop-outs	2.79	1.44	2.40	2.88	1.36	1.58
Composite Percentage (MS 1, 3, 5)	2.24%			2.09%		

4.5.2 Teachers' Perceptions of Reasons for Drop-outs. Perceptions of teachers of the reasons for drop-outs are set forth in Table 59. This item was completely free-response, and may be hypothesized to reflect the real problems of the students better than the multiple-choice item given the principals. It will be noted from the table that the first ten reasons for drop-outs, as seen by teachers in the RSS schools, were: disciplinary problem; no financial support; various family problems; health problems (chronic illness or sequelae from accidents); no more interest in study; cannot meet minimum requirements; family moving; problem with sexual relations; taking employment; parents' need or decision.

Table 59

Perceptions of Teachers of Reasons for Drop-outs

(Questionnaire Free Response Data: N = 1069)

Rank	Reason	f
1	Disciplinary problem	468
2	No financial support	361
3	Various family problems	241
4	Problem of health (longtime illness or crippled by accidents)	
5	No more interest in study	134
6	Cannot meet minimum requirements	133
7	Family moving	109
8	Problem with sexual relations	81
9	Taking employment	79
10	Parents' need or decision	40
11	Continue study elsewhere	28
12	Drug problems	26
13	Marriage	19
14	Dead	15
15	Transportation problems	7
	TOTAL	1738

4.5.3 *Parents' or Guardians' Experience With Drop-outs from Their Homes*. One hundred seventy-seven parents reported on drop-outs of students from their homes. One hundred forty-seven parents (83%) stated that no student in their home had ever dropped out of school. Thirty (17%) stated that a student in their home had dropped out. Perceptions of parents and guardians of the reasons for students' dropping out will be seen in Table 60. The limited number and type of responses is interesting.

Table 60

Perceptions of Parents or Guardians Concerning the Reasons for Drop-outs of Children from Their Homes

(Parent's and Alumni Questionnaire Free Response Data: N = 183)

Reason	N
No financial support	10
No more interest in study	4
Not meeting minimum requirements (poor achievement)	4
Find employment	3
No senior high classes in school	2
Other: Parent's decision Family problem Death Negative attitude toward teacher No suitable area for aptitude	5

4.6 Student Transfers

The number of students who transferred in or out of the school, by grade, during the school year 1978 are set forth in Table 61. Considering that the total number of students in the 1978 school year was 32,195, the 833 transfers in (2.59%), and the 317 transfers out (0.98%) seem quite small. The fact that there were 738 transfers in but only 84 out, in M1 and MS 1, is interesting. It could be hypothesized to represent popularity of the schools.

Table 61

Transfers of Students In and Out of Sample Schools

(Principal's Questionnaire Data: N = 16)

Type of Transfer	Number of Transfers						
	M1	MS 1	MS 2	MS 3	MS 4	MS 5	Total
Transfers in	376	362	27	26	18	24	833
Transfers out	67	17	61	64	36	72	317

5. SUMMARY COMMENTS

Chapter Three has examined the nature and implementation of the three curricula in use in the RSS schools (1969, 1978, and 1975) under four topics: Programs and Courses, Adequacy and Flexibility, Teachers and the Curriculum and Students and the Curriculum.

Data show that in general, the sample schools have implemented an appropriate blend of academic and Practical Arts courses. The offerings and availability of Practical Arts varied somewhat from school to school, and some restrictions existed in student freedom of choice of the Practical Arts electives. Some constraints also existed in the choice of other electives or options, due to the setting up of pre-planned "programs" in many of the schools, a practice adopted because of the difficulty of hand-scheduling a large school for full individual choice of electives. Some schools have as high as 86% of the students taking academic subjects only, others as low as 36%.

Program strengths in the curriculum were seen to be in Science, Agriculture, Mathematics, and Practical Arts. Teachers also included Foreign Languages in their first six choices. Some program improvements were seen to be needed, such as more and better-trained staff; more equipment and materials; and additional facilities, especially in Practical Arts and Physical Education. All student groups found Foreign Languages among the most difficult subjects, together with varying numbers of

Practical Arts subjects, especially in M1. MS 5 included Mathematics and Science as among the most difficult subjects.

Although rank orderings varied somewhat from sample to sample, a sums of ranks procedure revealed that the six most important courses as seen by M1, MS 3 and MS 5 students, and by parents and alumni, were, in order: Science, Mathematics, Thai, Health and Physical Education, Social Studies, and Foreign Languages. Science and Mathematics were clearly seen as the most important by all groups.

The adequacy and flexibility of the curricula were perceived quite differently by teachers and principals. Principals rated all aspects of curriculum uniformly higher (and above average) than did the teachers, who rated only six of thirteen facets of the curriculum as above average. The 1969 Curriculum was preferred by both principals and teachers over the 1975 or 1978 curricula on all criterion measures. Wide difference appeared in the perceptions of the adequacy of learning materials. M1 students rated the adequacy the highest, teachers the lowest -- the lowest ratings in the whole study. Greatest shortages of learning materials were seen in Science, Physical Education, Industrial Arts, Library, and Music.

Both principals and teachers rated the knowledge of teaching methods and teachers' familiarity with the curricula as above average. Principals rated teachers higher than did the teachers themselves.

Concerning admission of MS 1 and MS 4 students to the RSS schools, an entrance examination was still by far the most favored procedure, followed by residence status and interview. Guidance services were seen as average or above-average in five out of seven criteria, but considerable confusion existed as to the role and function of guidance services and guidance counsellors.

The drop-out rate was found to be very low, lower than in Bangkok or nation-wide government secondary schools. Considerable differences were found between perceptions of principals and those of teachers for the reasons for drop-outs. Transfers into the RSS schools far exceeded transfers out, especially at M1 and M2 levels.

In sum, the data from Chapter Three suggest that the following generalizations may be made:

- The RSS schools were generally honoring the basic concept of the diversified curriculum -- the offering of a wide variety of courses and programs, with strengths reported by staff in both Academic and Practical Arts areas.
- Constraints existed on the availability of Practical Arts and other electives.
- The curriculum in the schools was generally considered average or better than average.
- The 1969 Curriculum was preferred by principals and teachers over those of 1975 and 1978.
- The curricula prepared students adequately either for further studies or for employment, but better for further studies than for employment.
- A strong academic thrust was present, as demonstrated by the use of entrance examinations as an admission criterion, and the listing of mainly academic courses as the most important.
- Guidance services were generally considered adequate or better with two exceptions.
- Shortages of learning materials were present, rather acutely in some areas.
- Response patterns to the questionnaires showed three groupings: high ratings -- principals and M1 students; average ratings -- MS 3 students and parents and alumni; low ratings -- MS 5 students and teachers.
- Overall, the curricula being used in the schools were popular and successful.

* * * * * * * * * * * * * *

CHAPTER FOUR

FINDINGS: ORGANIZATION AND ADMINISTRATION

The organization and administration of a school with a diversified curriculum reflect the complexity of diversification and the honoring of its underlying principles. Within the context of Thai government secondary schools a certain amount of freedom is allowed to directors or principals of schools to organize their administrative and teaching staff to suit the local situation. This chapter, then, will present the findings from the responses of the local RSS schools, and from the information supplied by the Office of Special Projects of the Department of General Education. The information will appear under these headings: school organization; school functions, workloads and assignments; administration of the instructional program; the decision-making process; communication and school-community relations; effectiveness of teachers and administrators; discipline and general school atmosphere.

1. SCHOOL ORGANIZATION

1.1 School Organization

Information on school organization was obtained from Principal's Questionnaires and from the Office of Special Projects of the Department of General Education. An analysis of the varied patterns of school organization found in the reports from principals will be found in Appendix H. Official Ministry of Education policy for the administrative staffing of Lower and Upper Level government secondary schools, as provided by the O.S.P., follows.

There are 9 standard sizes for secondary schools, going by classroom size and number of pupils. Each category of school has 3 types of staff: administrative, school service, and teaching. The teacher/student ratio, based on the school's total capacity, including the three types of staff, is 1:17 in the Lower Secondary level and 1:15 in the Upper Secondary level.

School service staff includes 10 positions: finance, business, registration and evaluation, education guidance, library, supplies, student activities, audio-visual, school health, nutrition.

The numbers of school service staff, depending on the number of classrooms and grades, are as follows:

1.1.1 Lower Secondary level

6 - 30 classroom schools. The total number of staff places is given in Table 62 based on 7 posts: finance, business, registration and evaluation, educational guidance, library, supplies, and student activities.

Upward of 36 classroom schools. If the school has been allotted no more than 10 places, once the first 7 places of service staff are filled, the rest could be given to personnel for school health and nutrition. If the school has more than 10 places for school service staff, they may be given to personnel for any post at the principal's discretion.

1.1.2 Upper Secondary level

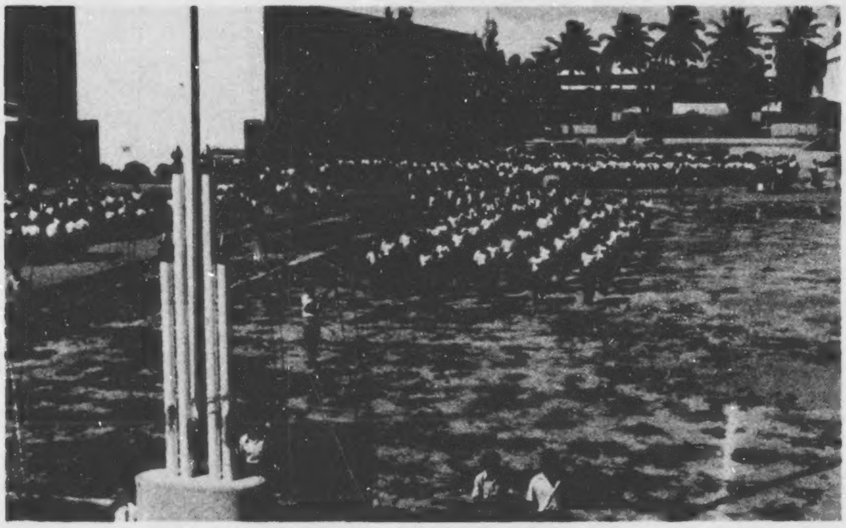
6 - 18 classroom schools. The total number of staff places is given in Table 63 based on 7 positions: finance, business, registration and evaluation, educational guidance, library, supplies and student activities.

24 - 30 classroom schools. The school may choose to give the additional places, as shown in Table 63 to personnel for school health, audio-visual and nutrition.

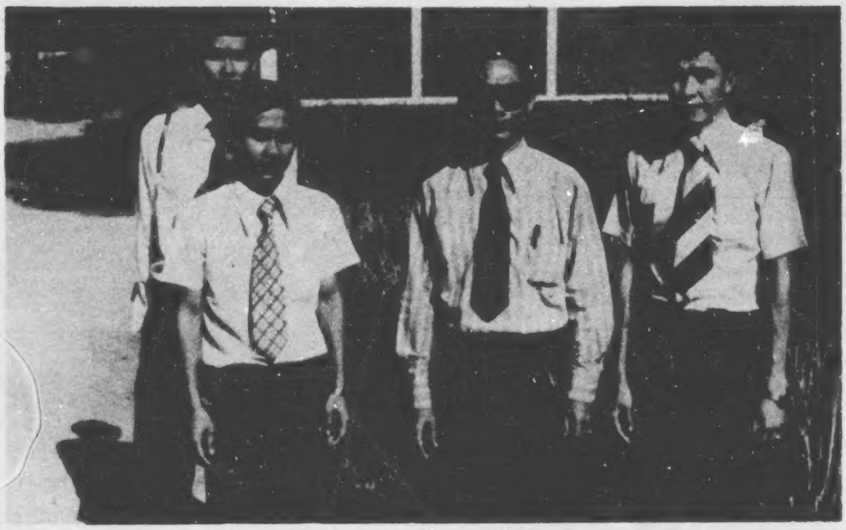
Upward of 36 classroom schools. Once the 10 obligatory positions have been filled, the rest of the places may be filled at the principal's discretion.

Administrative staff. There may be up to 4 assistant principals, according to the following criteria:

9 - 17 classrooms	1 assistant principal
18 - 26 classrooms	2 assistant principals
27 - 41 classrooms	3 assistant principals
Upward of 42 classrooms	4 assistant principals



Band, Sriyaphai School



Administrative Staff, Pan Phrao School

Table 62

Number of Administrative, School Service and Teaching Staff Places, Lower Secondary Levels Schools

(Office of Special Projects Documentary Data)

Type	1	2	3	4	5	6	7	8	9
Number of classrooms	6	12	18	24	30	36	42	48	54
Number of students	240	480	720	960	1200	1440	1680	1920	2160
Administrative staff	1	2	3	3	4	4	5	5	5
Principal	1	1	1	1	1	1	1	1	1
Assistant Principal	--	1	2	2	3	3	4	4	4
School service staff	1	2	3	5	7	9	10	12	14
Finance									
Business									
Registration and evaluation									
Educational guidance	1	2	3	5	7	7			
Library									
Supplies									
Student activities							10	12	14
School health									
Audio-visual						2			
Nutrition									
Teaching staff	12	24	36	48	60	72	84	96	108
Total number of personnel	14.12	28.23	42.35	56.47	70.59	84.70	98.83	112.94	127.06
Teacher/student	1:17	1:17	1:17	1:17	1:17	1:17	1:17	1:17	1:17

NOTE: The calculation is based on the following premises:

1. 40 students per room.
2. No more than 20 periods per week of teaching load.
3. 40 class hours per week.
4. Teacher/student ratio = 1:17
5. The number of school service staff is based on the total number of personnel subtracted by the number of administrative and teaching staffs.

Table 63

Number of Administrative, School Service and Teaching Staff Places, Upper Secondary Level Schools

(Office of Special Projects Documentary Data)

Type	1	2	3	4	5	6	7	8	9
Number of classrooms	6	12	18	24	30	36	42	48	54
Number of students	240	480	720	960	1200	1440	1680	1920	2160
Administrative staff	1	2	3	3	4	4	5	5	5
Principal	1	1	1	1	1	1	1	1	1
Assistant Principal	--	1	2	2	3	3	4	4	4
School service staff	2	3	5	8	9	12	14	16	19
Finance	2	3	5	7	7	12	14	16	19
Business									
Registration and evaluation									
Educational guidance									
Library									
Supplies									
Student Activities					2				
School health				1					
Audio-visual									
Nutrition									
Teaching staff	16	32	48	64	80	96	112	128	144
Total number of personnel	13.33	26.67	40	53.33	66.67	80	93.33	106.67	120
Teacher/student	1:15	1:15	1:15	1:15	1:15	1:15	1:15	1:15	1:15

NOTE: The calcultation is based on the following premises:

1. 40 students per classroom.
2. Teacher/student ration = 1:15
3. No more than 18 periods per week of teaching load.
4. 40 class hours per week.

2. ASSIGNMENT OF TEACHING STAFF

The assignment and workload of the teaching staff in the sample schools are set forth in Table 64. Findings fall into three broad areas -- teaching assignment by subject, number of preparation periods, and time spent on non-teaching duties.

Teaching loads were quite parallel in all departments, ranging from a low of 17.81 periods per week for Science teachers to a high of 19.25 periods per week for Physical Education teachers, for an average of 18.19 periods taught per week.

Average class sizes were also quite consistent, with the exception of Practical Arts, in which the size was 32.25 students. Sizes of other classes ranged from 39.75 to 42.81, for a grand mean of 40.99 students per class.

Preparation periods per week ranged from 9.75 for guidance counsellors to 13.25 for Science teachers, for a grand mean of 11.58 periods per week. Non-teaching duties ranged from 6.89 periods per week for Physical Education teachers, to 12.89 periods per week for guidance counsellors, for a grand mean of 8.65 periods per week.

The total workload in periods per week ranged from 37.39 to 40.22, for a grand mean of 38.42.

In general, a high level of consistency appeared in the assignment of teachers as analyzed under the headings of Table 64. It must be kept in mind, however, that all figures in the table are averages, and quite wide variations may occur from school to school and department to department. Also, averaging by departments reduces the precision of actual class sizes in specialized areas such as some Practical Arts subjects, where samller classes than 32.25 are common. Nevertheless, the table shows that the assignment of teachers is generally rational and fair, although class sizes are large, judged by conventional wisdom.

Other data on the deployment of staff were presented in Chapter Two in the section entitled "Profiles of Teachers."

Table 64

Assignment of Teaching Staff in the RSS Sample Schools[1]

(Principal's Questionnaire Data)

	Assignments				
	a) Average Number of Periods Taught per Week	b) Average Class Size	c) Average Number of Preparation Periods per Week	d) Average Number of Periods per Week for Non-Teaching Duties	Total Workload in Periods per Week
	$\bar{x}$	$\bar{x}$	$\bar{x}$	$\bar{x}$	
Teachers					
Thai	18.06	42.63	11.19	10.30	39.55
Foreign Languages	18.56	42.00	11.56	10.10	40.22
Social Studies	18.94	42.63	11.56	7.11	37.61
Mathematics	18.00	42.19	12.19	7.78	37.97
Science	17.81	42.81	13.25	7.33	38.39
Fine Arts	18.00	39.75	12.13	7.33	37.46
Physical Education	19.25	42.00	11.25	6.89	37.39
Practical Arts	18.56	32.25	11.38	8.11	38.05
Guidance Counsellors	16.50	42.67	9.75	12.89	39.14
GRAND MEAN	18.19	40.99	11.58	8.65	38.42

---

[1] Data were incomplete from some schools, and computations were thus based on averages from schools actually reporting.

3. ADMINISTRATION OF THE INSTRUCTIONAL PROGRAM

In this part, administration of the instructional program will be presented under these headings: hours of operation of RSS schools; scheduling the school; supervision of the instructional program; staff development; training effectiveness; in-service training needs; and, adequacy of in-service training.

3.1 Hours of Operation of Schools

The operation of sample schools in the 1978 school year is summarized in Table 65. Opening of the school day ranged from 7:45 a.m. to 8:45 a.m. The closing hour ranged from 3:30 p.m. to 4:50 p.m. Most schools (11) operated on a single-shift basis, the remaining schools operated on a double shift without marked difference in opening and closing times. The number of teaching days over the year ranged from 197 days to 210 days. While the average number of teaching days was approximately 201, a mode of 200 days was reported. In all cases, except one in which there were no senior high classes, the number of (50 minute) periods of operation in a week was identical at both the Lower and Upper Secondary levels. Departmental regulations call for the schools to be operated for 200 days per year, 35 periods per week, plus the possibility of 5 further optional periods per week. Data from the RSS schools studied showed an average of 36 periods per week of school operation.

Discussing School Organization, Phon Tong School, Roi-Et Province

Table 65

Hours of Operation of the 16 Sample RSS Schools

(Principal's Questionnaire Data)

Time Detail	Range
Daily operation	
Opening (a.m.)	7:45 - 8:45 a.m.
Closing (p.m.)	3:30 - 4:50 p.m.
Number of shifts	1 - 2
Number of teaching days	197 - 210
Periods of instruction per week (50 minutes each)	
Lower Secondary	35 - 40
Upper Secondary	35 - 40

3.2 Scheduling (Timetabling) the School

Examination of the responses of principals on interview revealed that a fairly consistent seven-step model existed, with four major stages: planning, course selection, student grouping, and constructing the schedule or timetable for the school. The process was in some aspects similar to that recommended by Deane (1971:32 pp), but with some significant differences. The latter will be discussed after the findings from the current study have been presented. Responses from the principals indicated that within the sixteen sample schools, certain practices varied from school to school. Analysis of the responses revealed the following pattern:

3.2.1 General Procedure for Timetabling.

The seven steps in the general procedure were:

a) Initial meetings with department heads and guidance counsellors, to agree upon an instructional program for the next school year;

b) Preparation by guidance counsellors of a Student Handbook on program offerings;

c) Student meetings with department heads to explain the nature of the program and courses;

d) A first try-out of student choices;

e) Program revision, with approval of parents who sometimes attend registration;

f) Sorting of students into homogeneous groups; and

g) Finalization of schedule, first by fixing the Industrial Arts courses because of limited space, and then accommodating other courses.

3.2.2 Other Practices. Interviewees indicated other practices relevant to these schools, which are summarized below.

(a) Planning Stage. At the planning stage, many procedures were commonly used, for example:

i) Decision concerning program by appointed academic staff, including guidance counsellors and assistant principal for academic affairs;

ii) Designing of program by the academic assistant and guidance counsellors.

iii) The academic assistant and department heads setting up a master schedule vis-a-vis the needs of local community;

iv) Meeting the MS 1 students' parents in the second school term to explain the school program offering;

v) Meeting of M1 students' parents about 2 weeks before the opening of the next school year in order to get enrolment figures;

vi) Survey of student needs for courses;

vii) Students come to the school to select courses; and

viii) Establishing program enrolments.

(b) Course Selection Stage. At this stage, there were such common practices as the following:

i) Students make program selection rather than individual course selection, in order to avoid timetable conflicts;

ii) Selection of courses by guidance of parents and counsellors;

iii) Free selection of certain electives in each program in certain schools;

iv) Completion of a form by students with parental approval, subject to change by the school whenever necessary;

v) Re-examination for over-registered courses and reduction of course enrolments, resulting in referring exclusions to Practical Arts programs such as Home Economics, Industrial Arts, etc.; and

vi) Individualizing choice of electives.

(c) Student Grouping. Student grouping was reported to be carried out in several ways, for example:

i) Homogeneous grouping in core courses;

ii) Homogeneous grouping within program selection;

iii) Heterogeneous grouping by mixed ability in electives;

iv) Ability grouping by results of the entrance exam; and

v) Grouping by individual preference and level of achievement.

(d) Constructing the Timetable. It was reported that this was usually done by the principal, the assistant principals, the department heads and the guidance counsellors. It was also reported that the last step was assigning students to homeroom teachers.

3.2.3 Comparison With Recommendations in the Deane Report (1971).

The Final Report, Comprehensive School Project (Deane, 1971) included a section entitled "Timetabling in Comprehensive Schools." These guidelines (Appendix I) have been used in the 20 CIDA schools, and the basic principles carried over into the RSS schools, with some refinements. Data presented by principals in this RSS schools study indicated that the refinement included the following:

a) Preparing and circulating a Student Handbook early in the scheduling process;

b) Involving parents more specifically at two points in the process: meeting MS 1 parents before the second term started, and meeting M1 parents two weeks before school opened;

c) Conducting a survey of student needs;

d) Considering community needs in creating the master timetable;

e) Students coming to school to select courses;

f) Channelling students from over-registered courses into Practical Arts courses;

g) Considering specifically the different forms of the grouping of students, such as homogeneous grouping, heterogeneous grouping, ability or level of achievement grouping, individual preference grouping.

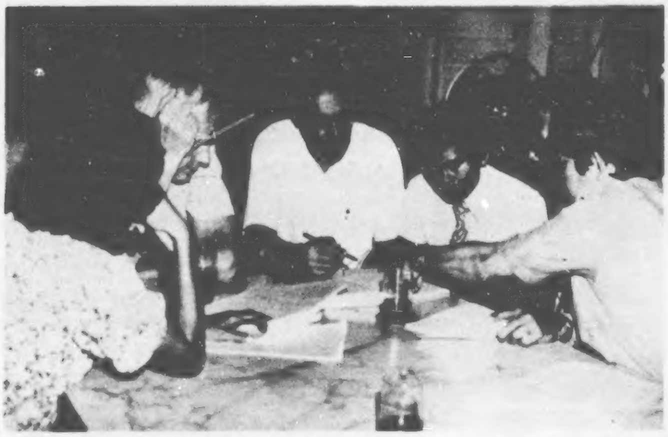
In sum, there appeared to be a much greater specificity in the RSS schools on preparation of students and parents and alumni for course and program selection, and on community involvement generally, than existed in the 1971 Deane recommendations. Concerning the mechanics of scheduling, the Deane report gave heavy emphasis to the use of Keysort cards for the grouping of students. This process was not mentioned in the current study, possibly because its use may have been taken for granted. The very time-consuming process of identifying conflicts in student timetables will be discussed later in this report in terms of the routine use of the computer by many large school systems to produce the "conflict matrix" in a very short time.

3.3 Supervision of the Instructional Program

Principals' and teachers' rank-ordering of the instructional practices used to supervise the instructional program in their schools are presented in Table 66.

Both principals and teachers ranked the supervision practices in the same order, as follows: (1) inspection of teachers plan books, (2) classroom visits, (3) review of grades assigned to students, (4) review of reports from department heads and (5) review of reports from students. The small number of responses from teachers is because item instructions directed only department heads or class heads (in multi-sectioned classes) to complete the item.

Senior Administrative and Teaching Staff,
Phota Wattanaseni



Discussing School Organization, Pan Phrao School

Table 66

Rank-ordering of Supervision Practices

(Principal's and Teacher's Questionnaire Data)

Supervisory Practice	Principals (N = 16)			Teachers (N = 1069)		
	Rank	$\bar{X}$	N	Rank	$\bar{X}$	N
Inspection of teacher's plan book	1	1.92	13	1	2.28	146
Classroom visits	2	2.20	15	2	2.40	186
Review of grades assignment	3	2.86	14	3	2.56	200
Review of reports from department heads	4	3.00	15	4	2.90	133
Review of reports from parents	——	N/A	——	6	3.24	160
Review of reports from students	5	4.00	9	5	3.11	159

Table 67 contains a summary, obtained in interviews, of the methods eight principals reported using to supervise the instructional programs in their schools. Principals assumed overall responsibility for supervision of the instructional program in their schools and delegated specific aspects of the supervision to assistant principals, department heads, and level or grade heads. In addition to the in-school supervision of the instructional program, principals reported that external supervision was conducted by Ministry of Education central and regional office supervisors.

Specific examples of methods reported by principals covered a wide variety of methods to supervise the instructional program, such as: staff and department meetings; classroom visits by administrators and department heads; in-service training and workshop sessions in regional centres, in private institutions, and in Bangkok; visits to CIDA and other schools; study leaves to enable teachers and administrators to upgrade their skills; distribution of articles on good teaching; direct in-classroom supervision of individual teachers; review of student assignments; consultation with assistant principals, department heads and individual teachers; orientation programs for school staff; and visits by Ministry of Educational supervisors to assist in both specific and general instructional areas.

Table 67

Methods of Program Supervision Reported by Principals

(Principals' Interview Data: N = 8)

Supervising Person	Method of Supervision
In general	Suggestions in meetings
	Messages to department heads or grade level heads
	Orientation Program to own school visiting CIDA and other schools
	Seminars and in-service training in Bangkok or Regional Center or private institutions
	Articles on good teaching
	Meetings, workshops and preparation before each school year
Principal	Classroom visitation
	Personal discussion/interview with staff members, re problems
	Direct supervision of individual teachers
	General instructions to staff as a whole

Continued . . .

Table 67 (Continued)

Methods of Program Supervision Reported by Principals

(Principals' Interview Data: N = 8)

Supervising Person	Method of Supervision
Principal (continued)	Discussion with Assistants and department heads Consultation with department heads after interview with teacher, to check Examination of students' exercise books
Assistant Principal	Classroom visitation Examination of students' exercise books General observation and supervision of students, re behaviour, attendance in classes, teaching-learning situations Going to DGE or DEdTech. for advice
Department Heads and/or Grade Level Heads	Classroom visitation Checking lesson plan book by level heads, weekly Department head assigns subsitutes and level head checks if assignments are carried out Called on by principal to give assignments to teachers in own department Have staff meetings in own department Department heads have major responsibility for internal supervision

Continued . .

Table 67 (Continued)

Methods of Program Supervision Reported by Principals

(Principals' Interview Data: N = 8)

Supervising Person	Method of Supervision
Ministry of Education and Regional Supervisors	School invitation Specific areas of instruction Visitation by Supervisory Units staff Occasional help (on request) from Regional Supervisors

An Example -- Pan Phrao School

Specific Approaches

1. Division of responsibility for supervision among principal and 3 assistants.
2. Each administrator visits classes in 2 departments.
3. Each administrator observes 4 teachers per department per school term without prior notice.
4. Each administrator prepares written reports of classroom visits.
5. Written reports are discussed with department heads and the teacher concerned.

3.4 Staff Development

Principals' and teachers' rank-ordering of the methods used to improve the teaching performance of individual teachers in their schools are presented in Table 68.

Principals and teachers generally agreed on the relative rankings of the methods used to improve teaching performance. Both principals and teachers ranked "discussion between department head and teacher" first, and "written request from principal to teacher" fourth. "Discussion between principal and teacher", and "discussion between assistant principal and teacher" were ranked respectively, second and third by principal, and third and second by teachers.

Table 68

Rank-ordering of Methods Used to Improve Teaching

(Principal's and Teacher's Questionnaire Multiple Choice Data)

Method	Principals (N = 16)		Teachers (N = 1069)	
	Rank	N	Rank	N
Principal-Teacher discussions	2	16	3	782
Written request from Principal	4	15	4	699
Assistant Principal-Teacher discussions	3	16	2	822
Department Head-Teacher discussions	1	16	1	898

Table 69 contains a summary, obtained in interviews, of the methods of eight principals reported using to improve the teaching performance of individual teachers in their schools.

Principals reported using a wide variety of methods to improve teaching performance, which included, among others; intervisitations between RSS schools; visits to CIDA Project schools; in-service training seminars and conferences organized within school clusters and by the Project or Regional Offices on such topics as instructional methods, student assessment, curriculum materials, program development and administration; demonstration teaching by teachers and specialists; sending teachers to short-term subject area training courses ranging in length from 7 days to 4 months; provision of leave for further studies for teachers and administrators; in-school staff, administration and department meetings, visits to schools by Supervisory Unit and Regional Office staff members; and dissemination of information to staff through articles and by teachers returning from seminars and conferences.

Table 69

Methods Used to Improve Teaching Performance

(Principals' Interview Data)

1. Intervisitation between RSS schools.
2. Seminars and conferences within school cluster.
3. Seminars and conferences operated by Project Office.
4. Monthly meeting with all teachers.
5. Invite resource persons from Supervisory Unit in Bangkok and Regional Center to talk with staff.
6. Visiting CIDA schools in operation.
7. In-service training for clusters of schools organized by Regional Office.
8. Demonstration teaching by teachers, specialists.
9. Further studies.
10. Send teachers to training courses, from 7 - 15 days to 4 months, in subject areas.
11. Meetings of administrative group.
12. Dissemination by teachers returning from seminars, by distribution of articles.

In addition to the methods reported by principals, teachers on free responses on the questionnaire, noted that consultation among teachers, consultation among administrators, consultation between teachers and administrators, meetings between supervisors and subordinates, and individual self-improvement, were important methods used to improve the teaching performance of individual teachers.

3.5 Training Effectiveness

Ratings of principals and teachers of the effectiveness of three types of staff training provided during RSS Project implementation are presented in Table 70.

Principals' ratings of the three types of training fell well above the mid-point of the scale. Teachers' ratings of the two types of training which had been available to them -- "RSS Project in-service training by DSEU," and "school intervisitations" fell somewhat below the mid-point on the scale. This may be due in part to the fact that not all teachers were covered by the DSEU in-service training program. Differences between principals' and teachers' ratings were significant beyond the 0.01 level.

Both principals and teachers rated the "RSS Project in-service training provided by DSEU" slightly higher than they rated "school intervisitations."

Principals gave similar ratings to the "Alberta Training Program" and the "RSS project in-service training provided by DSEU" and rated both higher than "school intervisitations."

Table 70

Effectiveness of Three Types of In-service Training

(Principal's and Teacher's Questionnaire Data)

	Principals (N = 16)		Teachers (N = 1069)	
	$\bar{X}$	N	$\bar{X}$	N
Rate the effectiveness of the following:				
a) Alberta Training Program	3.73	15	--	--
b) RSS Project In-service Training by DSEU	3.68	15	2.50	978
c) School Inter-visitations	3.44	16	2.31	969

3.6 In-service Training Needs

Teachers' perceptions of the greatest areas of need for in-service training for the staff of their schools are summarized in Table 71.

Teachers identified the greatest general areas of need for in-service training as follows: new curriculum; teaching methods; evaluation techniques; staff roles and responsibilities.

In terms of specific areas, teachers identified the greatest need for in-service in the following subject areas: Science; Practical Arts; English; Mathematics; Thai; Social Studies; Home Economics; and Guidance.

Principals (questionnaire free response data) generally agreed that in-service training was required in the same general and specific areas identified by the teachers.

Table 71

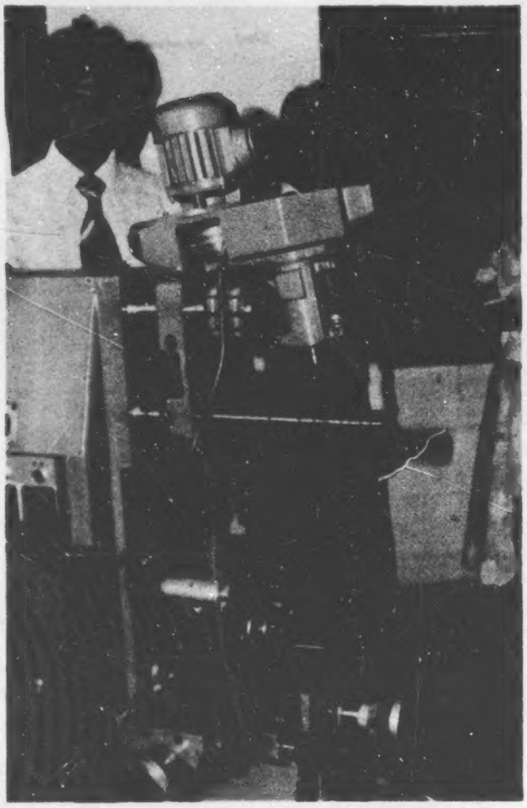
In-service Training Needs Identified by Teachers

(Teacher's Questionnaire Free Response Data)

Area of Need		f
(a) General Areas		
New Curriculum		225
1978 Curriculum	214	
RSS Curriculum	11	
	225	
Teaching Methods		207
Evaluation Techniques		141
Teaching and Audio-visual Aids		58
Staff Roles and Responsibilities		58
Administration and Supervision		19
Child Growth and Development		14
Moral Teaching		14
Public Relations		4
(b) Subject Areas		
Science		75
Practical Arts		60
English		54
Mathematics		53
Thai		34
Social Studies		27
Home Economics		24
Guidance		23
Fine Arts		19
Extra-Curricular Activities		14
Business Education		13
Agriculture		10
Physical Education		5
Linguistics		3

3.7 Adequacy of In-service Training

Ratings of principals and teachers concerning the adequacy of in-service training activities provided for the school staff in connection with the implementation of the curricula used in the RSS schools are presented in Table 72. Principals' ratings were somewhat above the mid-point for the adequacy of in-service training for the 1969 and 1975 curricula, but below the mid-point for the 1978 curriculum. Teachers' ratings fell below the mid-point for all three curricula. Significant differences were found between ratings of principals and teachers ($p < 0.01$) and in both samples, between all six comparisons of in-service for the three curricula ($p < 0.01$). In sum, principals and teachers perceived the in-service training for the 1969 and 1975 curricula better than that for the 1978.



Milling Machine, Practical Arts Program,
Sriyaphai School

Table 72

Perceived Adequacy of In-service Training

(Principal's and Teacher's Questionnaire Data)

Type of Curriculum	Perceived Adequacy of In-Service Training						Principal-Teacher Differences	Comparison of Pairs of Curricula		
	Principals			Teachers					Principals	Teachers
	$\bar{X}$	SD	N	$\bar{X}$	SD	N	p	Curriculum Pairs	p	p
(a) Comprehensive (1969)	3.63	0.72	16	2.34	0.99	1044	0.00	1969 & 1978	0.00	0.00
(b) Lower Secondary (1978)	2.94	0.68	16	2.29	0.96	1038	0.00	1969 & 1975	0.00	0.00
(c) Upper Secondary (1975)	3.06	0.85	16	2.42	0.97	1016	0.00	1978 & 1975	0.00	0.00

4. THE DECISION-MAKING PROCESS

In investigating the decision-making process in the school, the study sought information under these headings: involvement in decision-making in the school; staff meetings and council; community involvement; and meeting the needs of the local community. Findings under each of these headings follow.

4.1 Involvement in Decision-Making in the School

Perceptions of principals, teachers, students and parents and alumni of the extent of their involvement in decision-making which affects the entire school are presented in Table 73. Ratings of teacher involvement as seen by the principals, and ratings of the M1 students fell above the mid-point, but ratings of teachers, MS 3 and MS 5 students, and parents and alumni fell below the mid-point. Differences between groups were significant beyond the 0.01 level. Once again, the higher ratings of the principals and M1 students over the remainder of the sample appear.

On *interview*, M1 students perceived themselves as less involved than MS 3 and MS 5 students. Parents and alumni were generally satisfied with their level of involvement. Students perceived themselves as involved through meetings, class representatives, and activities.

Table 73

Involvement in Decision-Making in the School

(Principal's, Teacher's, Student's and Parent's and Alumni Questionnaire Data)

Group Involvement	$\bar{X}$	S.D.	N
Teachers (perceived by principals)	3.56	0.63	16
Teachers (perceived by teachers)	2.90	0.90	1052
Students (M1) (perceived by students)	3.00	1.02	1385
Students (MS 3) (perceived by students)	2.77	0.96	1408
Students (MS 5) (perceived by students)	2.70	0.99	1125
Parents (perceived by parents and alumni)	2.65	0.96	175

4.2 Staff Meetings and Councils

In reporting by questionnaire on the operation of staff meetings and school councils, principals recollected an average of 13.4 staff meetings per year, but teachers reported an average of 11.0. Principals contributed over two-thirds of the items for the staff meeting agenda, with the remainder coming from the administrative staff. Teachers reported moderate satisfaction with staff meetings. Fourteen schools reported operating an administrative council, which met on the average about fourteen times per year.

4.3 Community Involvement

Activities used to promote community involvement with the school in general were reported by principals on their questionnaire to be: (1) use of grounds or school, (2) school-community co-operatives, (3) alumni association, (4) school fund-raising, (5) adult education, (6) advisory committees, and (7) Parent-Teacher Associations.

Activities which should be used to involve the community with the school, in order of frequency of mention by parents, were: (1) public relations activities, (2) participation in community events, (3) Parent-Teacher Association meetings, (4) direct communication and (5) student motivational activities.

5. COMMUNICATION AND SCHOOL-COMMUNITY RELATIONS

In the fields of communication and school-community relations, perceptions were tapped concerning effectiveness of communication between: (1) various constituencies in the school setting; (2) parents and schools, and (3) with the Department of General Education. The existence and size of Adult Education programs were also investigated.

5.1 Communication Within the School and With the Community

Perceptions of principals, teachers, and parents concerning the effectiveness of communication between the various constituencies in the school setting are presented in Table 74. Principals rated the communication from the mid-point to somewhat above, whereas teachers rated communication effectiveness somewhat below the mid-point except for communication between teachers and teachers and between students and teachers, where it rose slightly above the mid-point.

Differences between teachers and principals were significant beyond the 0.01 level for the first three communication constituencies, but at 0.02 and 0.04 for the last two, respectively. Parents and alumni, asked to rate one channel only (school staff and parents), gave it a mean rating of 3.46, somewhat above the mid-point.

In a further question on types of communication with parents used by the school, the rank-ordering (by principals) of use was as follows: (1) letter mailed to parents, (2) letter sent home with student, (3) personal contact, (4) radio or television, and (5) notices in local newspapers. Letters were used considerably more frequently than the other forms.

Table 74

Effectiveness of Communication

(Principal's, Teacher's and Parent's and Alumni Questionnaire Data)

Communicators	Principals		Teachers			Parents and Alumni		
	$\bar{X}$	SD	X	SD	N	$\bar{X}$	SD	N
Principal and Teacher	3.94	0.68	2.94	0.91	995	--	--	--
Teachers and Teachers	3.63	0.50	3.13	0.80	998	--	--	--
Students and Teachers	3.81	0.65	3.18	0.72	998	--	--	--
School Staff and Parents	3.13	0.72	2.66	0.82	994	3.46	0.98	179
School Staff and Local Community	3.00	0.89	2.54	0.89	995	--	--	--

5.2 Liaison With the Department of General Education

The average number of times that principals visited the Department of General Education in Bangkok in 1978 was 11, ranging from 4 to 15 visits. The average number of visits from Department of General Education officials to the school, in 1978, was 6, ranging from 2 - 14 visits. Rank-ordering the frequency of types of communication used by the principal in contacting the Department of General Education, showed the order to be: (1) mail, (2) visits, (3) through Regional Education Officer, (4) seminars, (5) telephone, and (6) other.

5.3 Adult Education

Principals reported that adult education programs were operated in nine of the sixteen sample schools. Male adult students totalled 1365, female, 721, for a total of 2,086. The range of male enrollees per school was from 30 to 397, and for females, from 20 to 159, producing an average enrolment per school of 151.6 males and 80.1 females. The hours of operation of adult education programs ranged from 15 to 33, for an average of 26.44 hours per week.

5.4 Meeting the Needs of the Local Community

In Chapter Three were presented the findings as to what extent the curriculum met local needs. In this section, responses to the query, "To what extent does your school attempt to meet the needs of the local community?" are presented in Table 75. Ratings of all groups fell above the mid-point, with those of principals and M1 students falling considerably above. Since the query was rating the attempt to meet local needs rather than actual achievement by some unstated criterion, this finding can be considered a vote of confidence in the sincerity and energy of the school's staff and administration.

Table 75

Extent of Meeting Needs of Local Community

(Principal's, Teacher's, Student's, and Parent's and Alumni Questionnaire Data)

Respondents	Extent of Meeting Local Needs		
	$\bar{X}$	SD	N
Principals	3.94	0.44	16
Teachers	3.11	0.77	998
M1 Students	3.82	0.82	1414
MS 3 Students	3.31	0.82	1414
MS 5 Students	3.28	0.72	1130
Parents and Alumni	3.47	0.91	180

6. EFFECTIVENESS OF TEACHERS, ADMINISTRATORS AND PROJECT IMPLEMENTATION

6.1 RSS Project Implementation

Principals' and teachers' ratings of the effectiveness of the implementation of the Rural Secondary Schools Project are summarized in Table 76.

Table 76

Principals' and Teachers' Ratings of the Effectiveness of RSS Project Implementation

(Principal's and Teacher's Questionnaire Data)

Principals			Teachers		
$\bar{X}$	SD	N	$\bar{X}$	SD	N
4.13	0.50	16	3.24	0.72	970

Principals rated project implementation well above the mid-point, for a mean of 4.13, while teachers also rated it somewhat above the mid-point, at 3.24. Both groups showed relatively low standard deviations in their responses, 0.50 and 0.72 respectively. It can be concluded that the implementation was generally well-conducted.

On interview, further comments were received from the principals of the eight site-visit schools. The main points made in these interviews can be summarized as follows:

> There were several problems, such as not being able to make use of equipment because of shortage of operating funds, and having to hire special teachers from school funds to fill vacancies because regular teachers won't apply.
>
> Most of the objectives have been achieved. There was smooth implementation with good results. The RSS school is considered the best in the province. The school tries to help even one student such as the boy at Pua supporting his father because of a drug problem. From the outset, parents were interested and sent their children to this school. More students go on to further education, and many students go to work for themselves.

Opinions of Ministry Personnel on interview will be found in Chapter Seven.

6.2 Effectiveness of Selected School Services and Policies

Rating of teachers, M1, MS 3 and MS 5 students, and of parents and alumni of the effectiveness of selected school services and policies are presented in Table 77.

All listed school services and policies, with the exception of health and first aid services, as rated by teachers, fell above the mid-point on the scale, some considerably above. M1 students, following their usual response pattern, were more positive and rated all services and policies as being more effective than did the other respondent groups. Principals were not asked to complete this item, as it was believed that they might be too close to the situation.

Library services were rated the highest by M1 students and parents and alumni, and lowest by teachers and MS 5 students.

Reporting of students marks to parents was rated highest by M1 students, lowest by MS 5 students. Parents were not asked this question.

Fairness of assignment of marks to students by teachers was rated highest by M1 students and parents, lowest by MS 3 and MS 5 students, although all ratings were somewhat or considerably above the mid-point.

The scheduling of classes was rated highest by M1 students and parents, lowest by teachers, although all were somewhat above the mid-point.

The policy for admitting students to school was rated highest by M1 students, lowest by teachers, the latter rating it barely above the mid-point.

Health and First Aid services were rated highest by M1 students, lowest by teachers, who placed it below the mid-point in effectiveness.

Attendance policy was rated highest by M1 students, lowest by teachers, who placed it slightly above the mid-point.

In sum, the ratings of effectiveness of the selected school services and policies showed that the RSS schools generally were being administered with average or better than average effectiveness.

Table 77

Effectiveness of Selected School Services and Policies

(Teacher's, Student's and Parent's and Alumni Questionnaire Data)

Service or Policy	Teachers			M1 Students			MS 3 Students			MS 5 Students			Parents and Alumni		
	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N
a) Library services	3.08	0.81	991	3.59	0.74	1413	3.24	0.76	1412	3.11	0.80	1129	3.50	0.80	182
b) Reporting of student marks to parents	3.11	0.77	992	3.51	0.81	1391	3.16	0.83	1412	3.09	0.79	1127	--	--	--
c) Fairness of the assignment of marks to student by teachers	3.47	0.76	995	3.85	0.88	1405	3.22	0.95	1408	3.27	0.91	1129	3.68	0.79	179
d) Scheduling of classes	3.22	0.70	994	3.64	0.82	1403	3.39	0.83	1400	3.44	0.83	1118	3.46	0.69	182
e) Policy for admitting students to school	3.05	0.89	990	3.85	0.82	1410	3.44	0.92	1403	3.24	0.95	1127	--	--	--
f) Policy for assigning homework to students	3.13	0.70	989	3.60	0.81	1410	3.35	0.89	1403	3.23	0.80	1127	--	--	--
g) Health and first aid services	2.92	0.87	990	3.74	0.89	1395	3.10	0.95	1411	3.01	0.96	1129	3.15	0.69	182
h) Attendance Policy	3.08	0.72	999	3.87	0.84	1416	3.25	0.81	1417	3.20	0.82	1130	3.26	0.74	182

6.3 Administrative Effectiveness

Principals, teachers and parents and alumni rated the effectiveness of the administration of their schools on questionnaires, and also gave open-ended comments on the questionnaire forms. On interviews, a sub-sample of teachers and parents and alumni were again given the opportunity of rating the effectiveness of the administration and giving free responses.

Ratings of principals, teachers, parents and alumni on the questionnaires, together with ratings of the interview sub-samples of teachers and parents and alumni, are given in Table 78. All ratings ranged from somehwat above the mid-point to well above the mid-point. Teachers gave the lowest rating (on questionnaires), parents, the highest (on interview). The pattern of interview ratings being higher than anonoymous written ratings appeared, but it was clear that in general, administration of the schools was considered effective.

Table 78

Administrative Effectiveness

(Principal's, Teacher's, and Parent's and Alumni Questionnaire and Interview Schedule Rating Data)

	Principals (N = 16)			Teachers (N = 1069)			Parents and Alumni (N = 183)		
	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N
Questionnaire Data	3.88	0.50	16	3.18	0.81	1032	3.56	0.71	183
Interview Data	--	--	--	3.70	0.56	43	4.41	0.61	48

Free responses of teachers, chiefly from questionnaires, have been analyzed and summarized, and are presented in Table 79. The table is divided into negative and positive comments. There were 123 negative comments in all, and 190 positive comments, for a total of 313 comments out of the 1,069 teachers in the sample.

The greatest number of negative comments centred on authoritarian, centralized, undemocratic administrative practices which paid little or no attention to teacher views. Lack of delegation of authority and ineffective, poorly-trained or indolent principals were also mentioned as negative features of some schools' administration. Lack of ability in decision-making and poor discipline in the school were also mentioned several times.

The greatest number of positive comments centred on the school's administration displaying effective division of labor and responsibilities, and the delegation of authority. Co-operation among teachers and good discipline among pupils were identified. Hard-working, well-trained administrators were mentioned, along with participative decision-making in which teachers were consulted in frequent staff meetings. Democratic administration was mentioned several times, together with good human relations and a good organizational climate. Eleven teachers spoke of "excellent" or "efficient" administration with no further elaboration.

While parents made few comments on their ratings of the effectiveness of the administration in their schools, their comments agreed with and were similar to those made by the teachers. Parents' most frequent comments were: (a) The principal gets along well with teachers and they work effectively together; (b) School-community relations are very good; (c) Student-staff unity and discipline have been improved through extra-curricular activities, particularly sports and (d) There have been great improvements in recent years.

In sum, it is clear that most of the RSS schools are considered to display effective administration, although a number of the schools obviously lack this quality.

Table 79

Teachers' Comments on Administrative Effectiveness

(Questionnaire Free Response Data)

Comment	f
a) Negative Comments	
There is no shared decision-making; administrators do not listen to or care about the teachers; school is too centralized, too undemocratic, too bureaucratic	40
Poor division of labor, and no task or authority delegation	18
Ineffective, poorly trained, low ability administrators who do not work hard and/or do not spend enough time in the school	16
The administrators are poor decision-makers	16
Poor student and teacher discipline; students are not well-behaved	11
Lack of co-operation among teachers; staff disunity	9
Poor human-relations in the school	9
The administration does not give priority to the teacher-learning process	4
Sub-total	123
b) Positive Comments	
Effective division of labor and responsibilities and delegation of authority	33
Teachers are co-operative and work well together; and are given a chance to co-operate	30
Effective student and teacher discipline; students are well-behaved	19
Administrators have good training and abilities, are interested in their jobs and work hard	19
Teachers are involved/consulted in decion-making; administration accepts teachers ideas; staff meetings are held frequently	18
Sub-total	252

Continued . . .

Table 79 (Continued)

Teachers' Comments on Administrative Effectiveness

(Questionnaire Free Response Data)

Comment	f
Forward	252
b) Positive Comments (continued)	
Administration is democratic; school/administrative committee meets regularly for consultation	14
Excellent/efficient administration -- no reason given	11
Good human relations and friendly, pleasant staff climate	10
Good public relations; administration responds to societal needs	8
Administrators follow rules and regulations	8
Administration achieves school goals by good planning and operation	7
Administration is interested in teaching and learning	5
Administration understands student and teacher needs	4
Strong bureaucracy	4
Total	313

6.4 Effectiveness of Teachers

Rating on questionnaires of principals, teachers, M1, MS 3, MS 5 students, and of parents and alumni concerning the effectiveness of the instruction provided by teachers in their schools is summarized in Table 80.

Overall, respondents rated the effectiveness of instruction somewhat above or considerably above the mid-point. M1 students typically rated the effectiveness the highest, well above the mid-point, in five out of twelve subject areas. In general, effectiveness of teachers in academic subjects was rated slightly higher than that in Practical Arts subjects.

In terms of academic subjects, the order of effectiveness of instruction was: Science, Thai, Social Studies, Mathematics and Foreign Languages. Instruction in Guidance and Physical Education were perceived as more effective than in Foreign Languages. Parents and alumni global ratings of "academic subjects" was that instruction was considerably above the mid-point.

In Practical Arts, the order of perceived effectiveness of instruction was: Agriculture; Business Education; Home Economics; Industrial Arts. Parents' and alumni global rating of "Practical Arts" instruction placed it somewhat above the mid-point.

Interview data showed M1 students rating the effectiveness of all instruction well above the mid-point, while MS 3 and MS 5 students rated it considerably above the mid-point, as did the parents. Both these ratings were higher than similar ones on the questionnaires.

In the interviews, M1, MS 3 and MS 5 students, and parents and alumni were asked to comment on their ratings of the effectiveness of the instruction provided by teachers to students in their schools. The students made the following comments, in order: teachers are interested in students; most teachers are good; teachers help stimulate students' minds; teaching methods should be improved; teachers are willing to help students after class. The total number of comments received was 22 from 44 students.

Parents and alumni made the following comments, in order: students' achievement would indicate that the project schools are comparable to schools in other provinces and to most schools in Bangkok; most teachers teach in their areas of expertise with some exceptions in the Practical Arts area; teachers' salaries are too low, causing many to "moonlight" with resulting lower level of effectiveness. The total number of parents' comments received was 8 from 48 parents.

It can be concluded that a good level of confidence in the effectiveness of teaching existed among the respondents, with the academic subjects having a slight edge over the Practical Arts subjects in terms of effectiveness.

Table 80

Effectiveness of Teachers

(Principal's, Teacher's, M1, MS 3 and MS 5 Student's and
Parent's and Alumni Questionnaire Data)

	Grand	Principals			Teachers			M1 Students			MS 3 Students			MS 5 Students			Parents and Alumni		
	$\bar{X}$	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N
Academic Teachers																			
Thai	3.74	3.94	0.57	16	3.41	0.61	999	4.08	0.83	1407	3.65	0.89	1406	3.64	0.89	1120			
Foreign Languages	3.59	3.56	0.73	16	3.33	0.69	990	3.90	0.97	1366	3.61	0.92	1318	3.57	0.99	1065			
Social Studies	3.74	3.88	0.50	16	3.40	0.61	989	4.12	0.83	1409	3.70	0.84	1402	3.59	0.82	1116			
Mathematics	3.73	3.56	0.51	16	3.41	0.67	990	4.13	0.85	1405	3.78	0.92	1397	3.76	0.94	1097	3.63	0.57	174
Science	3.78	3.75	0.58	16	3.52	0.64	986	4.14	0.85	1402	3.74	0.86	1392	3.75	0.86	1091			
Fine Arts	3.47	3.63	0.62	16	3.30	0.65	981	3.81	0.87	1403	3.34	0.88	1105	3.26	0.85	703			
Physical Education	3.61	3.69	0.87	16	3.34	0.73	986	3.97	0.83	1384	3.63	0.85	1344	3.41	0.90	1029			
Practical Arts Teachers																			
Agriculture	3.54	3.53	0.64	16	3.40	0.77	949	3.76	0.90	1031	3.59	0.91	840	3.42	0.98	568			
Home Economics	3.44	3.53	0.74	16	3.33	0.71	914	3.80	0.87	1034	3.37	0.89	803	3.19	0.91	498			
Industrial Arts[1]	3.35	--	--	--	3.25	0.76	964	3.63	0.93	894	3.49	0.87	874	3.29	0.86	500	3.45	0.58	173
Business Education	3.49	3.50	0.71	16	3.24	0.74	795	3.66	0.94	777	3.89	0.94	716	3.17	0.97	481			
Guidance	3.64	3.75	0.68	16	3.17	0.80	960	4.09	0.84	1240	3.74	0.92	1161	3.43	1.00	709			

---

[1] "Industrial Arts" was omitted from the Principal's Questionnaire as a result of a transcription error.

7. DISCIPLINE, ATTITUDES AND SCHOOL ATMOSPHERE

In this part, the investigation will be reported under these headings: discipline in the schools; attitudes of students towards school, community and country, as perceived by teachers; general school atmosphere; and, satisfaction of teachers with their school.

7.1 School Discipline

Perceptions of principals, teachers, students, and parents and alumni concerning the nature of the discipline in the school, on a scale from "unsatisfactory" to "excellent," are presented in Table 81.

Principals and M1 students rated the discipline in the school well above the mid-point. Parents and alumni and MS 5 students thought it somewhat above, and MS 3 students and teachers perceived it as above the mid-point. However, fairly high standard deviations for this study (above 1.00) appeared in MS 3 and MS 5 students' ratings, indicating a fairly wide variation of opinion within the samples. Differences between groups were significant beyond the 0.01 level.

Principals of nearby schools on their questionnaire, rated the discipline in their schools somewhat above the mid-point in comparison with the nearby RSS school.

It can be concluded that the discipline in the RSS schools is seen by the respondents in the schools and in the community as generally satisfactory, with allowance being made for some variety of opinion on the topic.

Table 81

Discipline in the School

(Principal's, Teacher's, Student's, Parent's and Alumni Questionnaire Data)

Item: General discipline in this school . . . (unsatisfactory to satisfactory)			
	$\bar{X}$	SD	N
Principals (N = 16)	4.00	0.62	16
Teachers (N = 1069)	3.11	0.92	998
M1 Students (N = 1425)	4.00	0.90	1410
MS 3 Students (N = 1429)	3.18	1.12	1410
MS 5 Students (N = 1137)	3.26	1.15	1130
Parents and Alumni (N = 183)	3.36	0.99	179

Physical Education Class, Mae Tang School

7.2 Students' Attitudes

Responses from principals and teachers concerning the attitudes of students to school, community and country will be found in Table 82. On the scale from "negative" to "positive," attitudes, principals rated student attitudes considerably above the mid-point towards the community, well above the mid-point towards school, and higher yet towards their country. The standard deviations indicated considerable consistency among the 13 principals who completed this item. Teachers' ratings of student attitudes followed the same pattern, but at a somewhat lower rating on each sector. Again, standard deviations indicate a homogeneity of opinion. Differences between principals and teachers were significant beyond the 0.01 level concerning attitudes towards school and country, and at the 0.01 level towards community.

It can be concluded that in the perceptions of RSS school staff, very healthy attitudes towards community, school and country exist among students.

Table 82

Students' Attitudes

(Principal's and Teacher's Questionnaire Data)

Attitudes	Principals (N = 16)			Teachers (N = 1069)		
	$\bar{X}$	SD	N	$\bar{X}$	SD	N
Towards school	4.08	0.49	13	3.29	0.80	922
Towards community	3.69	0.85	13	3.20	0.72	911
Towards country	4.15	0.69	13	3.50	0.79	910

7.3 General School Atmosphere

Responses of M1, MS 3 and MS 5 students, and of parents and alumni concerning general school atmosphere or school spirit will be found in Table 83. Examination of the grand means of the four samples shows that all indicators were rated somewhat or considerably above the mid-point. Highest ratings were given to staff support of extra-curricular activities, closely followed by students having the opportunity to participate in extra-curricular activities; student support of extra-curricular activities; and students' consideration for staff. Response patterning was again evident, with M1 students' ratings being the highest, followed by those of parents and alumni, MS 3 and MS 5 students.

In specific sample groups, lowest ratings, with the highest standard deviations, were given to the category concerning communication from principal to students. MS 5 students rated this below the mid-point, the only rating at that level in this item.

Particularly high ratings were given by M1 students to: students are considerate of staff; students obey rules; and staff supports extra-curricular activities. MS 3 students gave highest ratings to staff and student support of extra-curricular activities. MS 5 students gave highest ratings to the three items on extra-curricular activities. Parents and alumni gave a very high rating to students' opportunities for extra-curricular activities, and high ratings to staff and student support of extra-curricular activities.

It can be concluded that the general school atmosphere in the RSS schools is satisfactory or better. The very high profile of extra-curricular activities as an indicator of school atmosphere is noteworthy.

Table 83

General School Atmosphere

(M1, MS 3, MS 5 Student's and Parent's and Alumni Questionnaire Data

	Grand Mean	M1 Students (N = 1425)			MS 3 Students (N = 1429)			MS 5 Students (N = 1137)			Parents and Alumni (N = 183)		
	$\bar{X}$	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N
a) Students are considerate of staff	3.79	4.23	0.76	1416	3.66	0.83	1412	3.65	0.81	1126	3.62	0.70	182
b) Students show respect	3.30	3.77	0.84	1410	3.20	0.94	1409	3.05	0.92	1124	3.18	0.96	181
c) Students accept responsibilities	3.40	3.77	0.81	1411	3.31	0.89	1409	3.20	0.87	1126	3.30	0.79	182
d) Students consider feelings	3.34	3.36	0.76	1404	3.34	0.76	1408	3.30	0.75	1123	3.37	0.69	179
e) Teachers consider students needs	3.42	3.92	0.82	1407	3.28	0.92	1406	3.20	0.92	1122	3.56	0.80	182
f) Administration are considerate of students	3.46	3.79	0.83	1407	3.20	0.94	1406	3.19	0.96	1119	3.65	0.82	181
g) Students obey rules	3.77	4.17	0.78	1410	3.61	0.93	1403	3.64	0.87	1122	3.66	0.82	183
h) Communication	3.29	3.75	0.88	1410	3.07	1.01	1400	2.96	1.03	1119	3.38	0.98	182
i) Students take part in extra-curricular activities	3.82	3.84	0.93	1403	3.71	0.97	1405	3.66	0.91	1122	4.05	0.74	182
j) Students support of extra-curricular activities	3.79	3.93	0.82	1404	3.70	0.90	1406	3.66	0.88	1121	3.86	0.80	183
k) Staff supports extra-curricular activities	3.89	4.16	0.80	1407	3.81	0.91	1405	3.68	0.93	1121	3.91	0.75	182

7.4 Teacher's Job Satisfaction

Numerical and free response data obtained from forty-three teachers on interview revealed that those respondents were well satisfied with their job in their school. The mean rating on the five-point scale was 4.55, with 25 respondents reporting that they were "very satisfied." In free responses on interview, sixteen stated that they liked their job or teaching assignment, five reported their workload as too heavy, and nine other responses indicated miscellaneous observations about working conditions, all of which are discussed elsewhere in this report under needed changes or improvements.

8. SUMMARY COMMENTS

The organization of the RSS schools reflects both Ministry policies and regulations and a measure of local autonomy. The number of staff members is set by the Ministry, but considerable freedom exists to deploy the administrative, teaching and service staff in differing ways. Teachers' workloads were reasonably uniform throughout the sample schools, averaging 38.4 periods per week of teaching, preparation and non-teaching duties. Days and hours of operation are quite consistent throughout the schools, as might be expected in view of Departmental regulations.

The general procedures in scheduling the schools appear uniform, following the basic pattern set forth in the Deane Report of 1971, but with more information flow between school and community. Principals use quite orthodox supervision practices such as inspection of plan books and visitation of classrooms. Staff development is carried on in a considerable variety of ways, including school intervisitations. The in-service training provided by the DSEU (Diversified Secondary Education Unit) of the Ministry was the preferred training program for staff. In-service training needs were expressed clearly in a number of areas. In terms of in-service training given for the 1969, 1975 and 1978 curricula, that provided for the 1969 Curriculum was clearly preferred.

Involvement in decision-making in the school was seen as quite high by principals, but considerably lower by teachers, parents and alumni and students. Nevertheless, community involvement in the school generally was considerable, although teachers felt that communication with the community was somewhat below the mid-point. Liaison with the Department of General Education appeared adequate to good, with a considerable number of visits of principals to Bangkok reported each year, and also a number of visits to each school each year by supervisory personnel from Bangkok.

Concerning the implementation of the RSS Project, principals rated the effectiveness of implementation as high. Teachers also rated it above the mid-point.

Nine schools reported operating adult education programs for 2,086 students.

Concerning the effectiveness of a number of school services and policies, all samples rated all categories above the mid-point with the exception of the teachers' rating of Health and First Aid services as slightly below the mid-point.

Discipline in the RSS schools was seen as good by all samples in the study, although a fair range of opinion existed on the topic. Attitudes of students towards community, school and country were perceived to be above the mid-point or well-above, in the view of principals and teachers. The general school atmosphere was also good, with a very high rating given to extra-curricular activities in terms of availability, support, and participation. Teachers interviewed reported that they were well-satisfied with their job in their school.

From the information reported in this chapter on the organization and administration of the RSS schools, it can be concluded that they are generally well-organized and operating efficiently.

* * * * * * * * * * * *

CHAPTER FIVE

FINDINGS: PHYSICAL FACILITIES AND FINANCIAL MANAGEMENT

One of the most time-consuming and costly aspects of the diversification of the secondary school curriculum is the planning, construction, equipping and managing of new buildings, and their integration into a unified program for the whole school. Financial management of a large school with a diversified curriculum is also a complex matter. This chapter, then, will report information obtained in the study under these two headings -- Physical Facilities and School Finances.

1. PHYSICAL FACILITIES

The most visible evidence to the community of the diversification of the school curriculum is the construction of new buildings. For the educational enterprise, however, the adequacy and utilization of the new buildings is the test as to whether or not the diversification of the curriculum is being implemented. During the transition to the new curriculum, staff go through a period of adjustment in learning to use effectively the additional space and facilities. This part of this chapter reports on the physical facilities in the RSS schools under these headings: availability; adequacy; and utilization.

1.1 Availability of Physical Facilities

The thirty-two schools in the RSS Project were divided into two sectors for purposes of the construction and equipping of buildings. Extensions of buildings at twenty-one schools were authorized under the World Bank Development Credit Agreement #369 TH. These were identified as "D" schools. Provision for furniture and equipment for eleven other schools was also authorized under the Credit. These schools were identified as "E" schools. The names of the "D" and "E" schools will be found in Table 84.

Table 84

"D" and "E" Schools (Physical Facilities)

(Office of Special Projects Data)

"D" Schools

(Secondary School Extensions)

	D 1	Satri Nonthaburi
	D 2	Samutprakan
**	D 3	Rayong Wittayakom
	D 4	Chomsurang-Upatham
**	D 5	Singburi Wittayakom
	D 6	Surat-Thani
**	D 7	Sriyaphai
	D 8	Tung Song
*	D 9	Benjamarachuthit
	D 10	Nari-Nakun
	D 11	Mattayom Bangbaw
*	D 12	Benjamathep-Uthit
	D 13	Satri Kanchanaburi
	D 14	Srisongrak Wittaya
*	D 15	Rahtborika-Nukroh
	D 16	Yangtalad Wittayakom
**	D 17	Phon-Tong Pattana Wittaya
	D 18	Prasart Wittayakarn
*	D 19	Ranode Wittaya
**	D 20	Photaram
	D 21	Damnern Saduak

"E" Schools

(Furniture and Equipment)

	E 1	Wat Khema-Pirataram
*	E 2	Bangpakong
	E 3	Chumpae Suksa
	E 4	Tatum-Prachaserm Wittaya
	E 5	Muangphon Suksa
**	E 6	Pan Phrao
**	E 7	Pua
**	E 8	Mae-tang
	E 9	Chae-hom Wittaya
	E 10	Ladyao
	E 11	Hoiyod

* Included in Co-operative Assessment sample.
** Included in Co-operative Assessment Site Visit sub-sample.

The geographical location of these schools will be found in Figure 1.

In addition to the construction of new buildings at the World Bank-assisted "D" schools, construction was also undertaken and completed by the Department of General Education, at its own expense, in the eleven "E" schools. Details of the type of quantity of units constructed at both "D" and "E" schools in the RSS Project will be found in Table 85. A "unit" is defined here as any one of the following:

(1) academic or Practical Arts classroom or instructional area

(2) teachers' houses

(3) janitors' houses

(4) sanitary facilities

(5) cafetoriums

From the data available, it was possible to compute only a close approximation of the number of units constructed, since some of the data stated only, "2-storey building," "3-storey building," or "4-storey building." The number of classrooms in each of these buildings was estimated to be 14, 21 and 40 respectively, based on the numbers in similar buildings where more precise data were available. Using this method of computation, a total of 1,379 units were constructed between 1975 and 1978. In some instances, actual construction exceeded the construction planned in 1973, in terms of area -- see Appendix J.

When considering the difficulties of sharply escalating prices, the remoteness of some of the RSS schools, and massive amount of detail required in planning, tendering, and constructing the buildings in this Project, it can only be concluded that the Department of Secondary Education did an effective piece of work implementing the building program. Visits of the Assessment team during January-February and July-August, 1979 to the eight site-visit schools in the sample, together with visits to some other RSS schools not in the sample, indicated that the new buildings had been well-constructed, and, for the most part, put into use as planned. These observations are made from the standpoint of fairly brief examination of the physical plant of the schools at the time of the visit.

Table 85

Actual Capital Costs of Civil Works for RSS Project Schools

(Office of Special Projects Documentary Data)

No.	Schools (Phase I, Fiscal Year 1974)	Descriptions and Quantity (units)																												Cost (Baht)
			2. Science Bldg.							3. Industrial Arts Work Shops							4. Home Economics Work Shops													
		1. Classroom Bldg.	Classroom	Science lab.	Science prep. rm.	Fine Arts rm.	Typing rm	Office Practice rm.	Library	Woodwork and Construction	Electricity	Power Mechanics	Metal Work	Leather	Arts Metal	Drafting	Clothing lab.	Food lab.	Handicraft	5. Agriculture W/S	6. Nursery	7. Teachers' houses	8. Janitors' houses	9. Sanitary Facilities	10. Cafetorium	TOTAL UNITS	11. Site Development	12. Remodel Existing Building	
1	Satri Nonthaburi	--	10	6	3	2	2	2	1	--	1	--	--	1	1	1	2	2	--	--	1	4	3	2	--	44		--	7,477,000
2	Wat Khemapirataram	--	--	--	--	--	--	--	--	--	2	2	1	--	--	1	--	--	--	--	1	7	3	3	--	20			4,354,980
3	Samutprakarn	--	16	6	3	2	2	2	1	--	2	2	1	--	--	1	--	--	--	--	1	--	--	3	--	42		--	9,522,550
4	Rayong Wittayakom	24	3	6	3	1	2	1	1	1	1	2	1	--	--	1	2	2	--	1	1	10	4	2	--	69		--	12,150,000
5	Bangpakong	--	3	2	1	2	--	--	1	1	1	1	--	--	--	--	1	1	--	1	1	--	1	1	--	18		--	4,214,160
6	Chomsurang-Upatham	--	16	5	3	--	2	--	1	--	1	--	--	1	1	1	2	2	1	--	1	3	3	3	1	47		--	9,870,000
7	Singburi	--	15	6	3	2	2	2	1	1	1	2	1	--	--	1	--	2	--	1	1	8	4	3	--	56		--	10,380,000
8	Surat-Thani	21	--	6	3	2	2	2	1	1	2	2	1	--	--	2	--	--	--	1	1	12	4	3	--	66		--	11,300,000
9	Sriyaphai	18	9	6	3	2	2	2	1	1	1	2	--	--	--	1*	--	--	--	1	1	11	4	5	--	69		--	13,179,000
10	Chumpae Suksa	--	9	3	2	2	2	1	1	--	1	1	1	--	--	1	1	1	--	--	1	5	2	3	--	37		--	7,300,000
11	Tung Song	--	4	3	2	2	2	2	1	--	1	2	--	--	--	1	--	--	--	1	1	3	2	--	--	27		--	5,375,234.20
12	Benjamarachuthit	18	--	6	3	2	2	2	--	1	1	1	1	--	--	1	--	--	--	1	1	6	4	5	--	55		--	9,639,890
	SUB TOTAL																									550			104,762,814.20

*Included in Science Building

Continued

Table 85 (Continued)

Actual Capital Costs of Civil Works for RSS Project Schools

(Office of Special Projects Documentary Data)

			Descriptions and Quantity (units)																										
No.	Schools (Phase I, Fiscal Year 1974)	1. Classroom Bldg.	2. Science Bldg.							3. Industrial Arts Work Shops							4. Home Economics Work Shops			5. Agriculture W/S	6. Nursery	7. Teachers' houses	8. Janitors' houses	9. Sanitary Facilities	10. Cafetorium	TOTAL UNITS	11. Site Development	12. Remodel Existing Building	Cost (Baht)
			Classroom	Science lab.	Science prep. rm.	Fine Arts rm.	Typing rm	Office Practice rm.	Library	Woodwork and Construction	Electricity	Power Mechanics	Metal Work	Leather	Arts Metal	Drafting	Clothing lab.	Food lab.	Handicraft										
13	Nari-Nukun	20	--	6	3	2	2	2	1*	--	1	--	--	1	1	1	2	2	--	--	1	10	4	5	1	65		--	10,143,600
14	Mattayom Bangbaw	--	4	2	1	2	--	--	1	1	1	1	--	--	--	1	1	1	--	1	1	5	2	3	--	28		--	6,068,996.90
15	Benjamathep-Uthit	24	3	6	3	2	2	2	--	--	1	--	--	1	1	1	2	2	--	--	1	12	4	5	2	73		--	12,268,680
16	Satri Karnchanaburi	--	12	3	2	2	2	1	1	--	1	--	--	1	1	1	2	2	--	1	1	3	3	1	--	40		--	7,393,700
17	Tatum-prachaserm**	--	1 building, 3-storey (21)							1	1	1	--	--	--	1	1	1	1	1	1	4	2	3	1	40		--	8,650,000
18	Srisongrak Wittaya***	--	16	2	1	2	--	--	1	1	1	1	--	--	--	1	1	1	1	1	1	4	1	3	1	40		--	8,500,000
19	Rahtborika-Nukroh***	--	16	4	2	2	2	2	1	--	1	--	--	1	1	1	2	2	--	--	1	4	4	4	--	50		--	9,902,312
20	Muangphon-Pittayakom**	--	2	2-storey buildings (14)						--	1	1	1	--	--	1	1	1	1	1	1	5	1	3	1	33		--	9,300,000
21	Pan Phrao **	--	1	3-storey building (21)						1	1	1	--	--	--	1	1	1	--	1	1	--	2	3	--	34		--	7,200,000
22	Yangtalad Wittayakarn***	16	1	3	2	2	2	1	1	1	1	--	1	--	--	1	1	1	1	1	1	5	2	3	--	48		--	9,400,000
	SUB TOTAL																									451			88,827,288.90

Continued...

* Included in Classroom Building

** 1977

*** 1976

Table 85 (Continued)

Actual Capital Costs of Civil Works for RSS Project Schools

(Office of Special Projects Documentary Data)

No.	Schools (Phase I, Fiscal Year 1974)	Descriptions and Quantity (units)																											Cost (Baht)
			2. Science Bldg.							3. Industrial Arts Work Shops							4. Home Economics Work Shops												
		1. Classroom Bldg.	Classroom	Science lab.	Science prep. rm.	Fine Arts rm.	Typing rm	Office Practice rm.	Library	Woodwork and Construction	Electricity	Power Mechanics	Metal Work	Leather	Arts Metal	Drafting	Clothing lab.	Food lab.	Handicraft	5. Agriculture W/S	6. Nursery	7. Teachers' houses	8. Janitors' houses	9. Sanitary Facilities	10. Cafetorium	TOTAL UNITS	11. Site Development	12. Remodel Existing Building	
23	Phon-thong[1] Pattana	--	16	2	1	1	--	--	1	1	1	1	--	--	--	1	1	1	1	1	1	4	2	3	1	40		--	8,000,000
24	Prasart[2] Wittayakarn	--	20	2	1	1	--	--	1	1	1	1	--	--	--	1	1	1	1	1	1	3	2	3	1	43		--	8,400,000
25	Pua	--	CS* 323**							1	1	--	--	1	--	1	1	1	1	1	1	4	1	2	1	40		--	7,230,000
26	Mae-tang		CS* 214***							1	1	1	--	--	--	1	1	1	1	1	1	--	1	2	--	26			6,722,240
27	Chae-hom Wittaya	--	CS* 323**							1	1	--	--	--	1	1	1	1	1	1	1	3	1	1	--	37		--	6,990,000
28	Ranode Wittaya	--	1	2-storey building (14)						1	1	1	1	1	1	1	1	1	1	1	1	4	1	2	1	34			10,200,000
29	Ladyao	--	CS* 321****							1	1	1	--	--	--	1	1	1	--	1	1	3	1	1	1	35		--	6,500,000
30	Photawattana-seni	--	1	4-storey building (40)						1	1	1	1	--	--	1	1	1	1	1	1	8	2	3	1	64		--	10,660,000
31	Holyod		--	--	--	--	--	--	--	1	--	1	1	--	--	1	1	1	1	1	1	6	2	2	--	19			8,022,520
32	Damnern-saduak	--	1	3-storey building (21)						1	1	1	--	--	--	1	1	1	1	1	--	4	3	3	1	40		--	7,351,630
	SUB TOTAL																									378			80,076,390
	GRAND TOTAL																									1379			273,666,493.1

[1] 1976

[2] 1977

* Classroom and Science Building

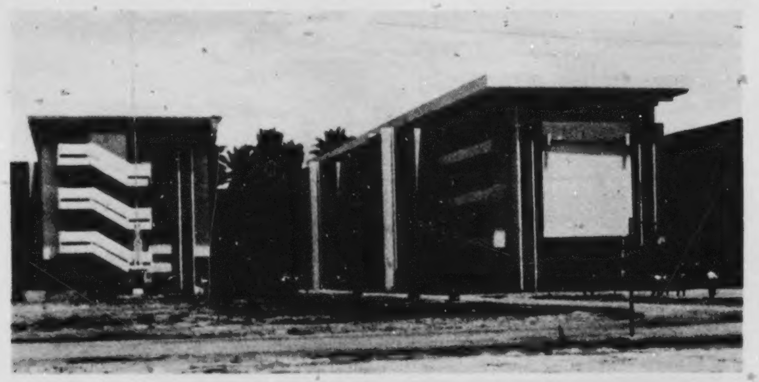
** 3-storey and 23 rooms

*** 2-storey and 14 rooms

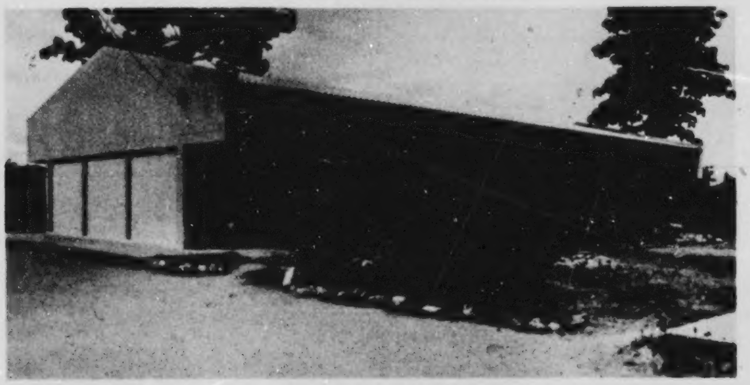
**** 3-storey and 21 rooms

Concerning the distribution of furniture and equipment provided for the RSS Project schools, the number of instructional areas equipped as a result of the Project will be found in Table 86. Full details of the type and quantity of equipment and furniture are available but not included in this report. Inspection of the lists would indicate, however, that the schools received sufficient furniture and basic equipment to implement a diversified curriculum.

A copy of the Implementation Schedule will be found in Appendix K Figure 2. This schedule shows the implementation in terms of civil works (buildings constructed), furniture, equipment, and technical assistance, for each of the four phases of the Project. Although some delays will be noted, it became apparent that by the time Phase IV was reached, the implementation process had reached stage of considerable uniformity in start-up and completion times.



Typical New Academic Building, RSS Project Schools
(Sriyaphai School)



Typical New Practical Arts Shop, RSS Project Schools
(Mae Tang School)

Table 86

Distribution of Furniture and Equipment for RSS Project Schools

(Office of Special Projects Data)

Item No.	School	Library	General-Science	Physics	Chemistry	Biology	Typing	Office Practice	Food	Clothing	Woodwork	Drafting	Electricity	Power Mechanics	Metals Shop	Art Metal	Leathercraft	Agriculture	Thai Music	Fine Arts	Classroom	Preparation	Cafetorium
1	Satri Nonthaburi	L*	3	1	1	1	2	2	2	2	--	1	1	--	--	1	1	--	1	1	10	3	--
2	Wat Khema-pirataram	L	3	1	1	1	2	2	--	--	--	1	2	2	1	--	--	1	1	1	5	3	--
3	Samutprakan	L	3	1	1	1	2	2	--	--	--	1	2	2	1	--	--	1	1	1	16	3	--
4	Rayong Wittayakom	L	3	1	1	1	2	1	2	2	1	1	1	2	1	--	--	1	1	1	27	3	--
5	Bangpakong	S*	2	--	--	--	--	--	1	1	1	1	1	1	--	--	--	1	1	1	3	1	--
6	Chomsurang-Upatham	L	2	1	1	1	2	2	2	2	--	1	1	--	--	1	1	--	1	1	16	3	1
7	Singburi	L	3	1	1	1	2	2	2	2	1	1	1	2	1	--	--	1	1	1	15	3	--
8	Surat-Thani	L	3	1	1	1	2	2	--	--	1	2	2	2	1	--	--	1	1	1	21	3	--
9	Sriyaphai	L	3	1	1	1	2	2	--	--	1	1	1	2	1	--	--	1	1	1	18	3	--
10	Chompae Suksa	S	3	--	--	--	2	1	1	1	--	1	1	1	1	--	--	1	1	1	9	2	1
11	Tung Song	S	3	--	--	--	2	2	--	--	--	1	1	2	1	--	--	1	1	1	4	2	--
12	Benjamarachuthit	L	3	1	1	1	2	2	--	--	1	1	1	2	1	--	--	1	1	1	18	3	--
13	Neri-Nukun	L	3	1	1	1	2	2	2	2	--	1	1	--	--	1	1	--	1	1	20	3	1
14	Mattayom Bangbaw	S	2	--	--	--	--	--	1	1	1	1	1	1	--	--	--	1	1	1	3	1	--
15	Benjamathep-Uthit	L	3	1	1	1	2	2	2	2	--	1	1	--	--	1	1	--	1	1	27	3	1
16	Satri Kanchanaburi	S	3	--	--	--	2	1	2	2	--	1	--	--	--	1	1	1	1	1	12	2	--
17	Tetum-prachaserm	S	2	--	--	--	--	--	1	1	1	1	1	1	--	--	--	1	1	1	12	1	1
18	Srisongrak Wittaya	S	2	--	--	--	--	--	1	1	1	1	1	1	--	--	--	1	1	1	16	1	1
19	Rahtborika-Nukroh	L	4	--	--	--	2	2	2	2	--	1	--	--	--	1	1	--	1	1	16	2	1
20	Muangphon	S	3	--	--	--	2	1	1	1	--	1	1	1	1	--	--	1	1	1	13	2	1
21	Pan-Phrao	S	2	--	--	--	--	--	1	1	1	1	1	1	--	--	--	1	1	1	17	1	--
22	Yangtalad Wittayakarn	S	3	--	--	--	2	1	1	1	1	1	1	--	1	--	--	1	1	1	17	2	1
23	Phon-thong Pattana	S	2	--	--	--	--	--	1	1	1	1	1	1	--	--	--	1	1	1	16	1	1
24	Prasart Wittayakarn	S	2	--	--	--	--	--	1	1	1	1	1	1	--	--	--	1	1	1	20	1	1
25	Pua	S	2	--	--	--	--	--	1	1	1	1	1	--	--	--	1	1	1	1	12	1	--
26	Mae-tang	S	2	--	--	--	--	--	1	1	1	1	1	1	--	--	--	1	1	1	16	1	--
27	Chae-hom Wittaya	S	2	--	--	--	--	--	1	1	1	1	1	--	--	1	--	1	1	1	16	1	--
28	Ranode Wittaya	S	3	--	--	--	2	1	1	1	1	1	1	1	1	--	--	1	1	1	5	2	[illegible]
29	Ladyao	S	2	--	--	--	--	--	1	1	1	1	1	1	--	--	--	1	1	1	12	1	--
30	Photaram	S	3	--	--	--	2	1	1	1	1	1	1	1	1	--	--	1	1	1	20	2	--
31	Hoiyod	S	3	--	--	--	2	1	1	1	1	1	1	1	1	--	--	1	1	1	11	2	--
32	Damnern-saduak	S	3	--	--	--	2	1	1	1	1	1	1	1	--	--	--	1	1	1	3	2	1
	Total	L 12 S 20	85	11	11	11	42	33	34	34	21	33	33	31	14	7	7	27	32	32	446	64	14

L* Large Size Library
S* Small Size Library

1.2 Adequacy of Facilities

Perceptions of all sample groups concerning the adequacy of the school site, buildings and housing units will be found in Table 87.

Concerning the school site, principals, teachers and parents and alumni rated the site somewhat above the mid-point.

Concerning school buildings, all sample groups rated the buildings from considerably below to considerably above the mid-point. Teachers' ratings, however, were generally low, ranging from very much below the mid-point to slightly above the mid-point. Students consistently perceived facilities as more adequate than the other groups. M1 students rated one facility below the mid-point, MS 3 students rated six below the mid-point, and MS 5 students rated five below the mid-point. A distinction must be noted between ratings of "School Buildings" in general, which were almost all at or near the mid-point, and ratings of specific buildings or facilities, some of which received the lowest ratings in this whole study, e.g. gymnasia -- but no gymnasia were included in the Project plans.

Concerning staff housing units, both principals and teachers rated the quantity as considerably below or very much below the mid-point. However, in view of the policy of the Ministry of Education to build only 60% of the ideal number of houses, the ratings of inadequacy can be understood and the implementation of the RSS Project rationalized. Teachers rated the quality of the houses considerably below the mid-point, and the maintenance, somewhat below.

In free response data from questionnaires, a very small number of inadequacies were mentioned by the respondents. The only exception to this was the view of 14 out of the 16 principals that gymnasia were needed for the schools. A much more accurate picture of the perceived inadequacies will be found by examination of the five-point questionnaire ratings rather than the free responses. Areas of greatest need, judged by the level of the questionnaire ratings, were found to be for gymnasia, recreation facilities, cafeterias, washrooms, teachers' houses, and maintenance of teachers' houses.

Table 87

Adequacy of School Site, Buildings and Housing Units (Principal's, Teacher's, M1, MS 3, MS 5 Student's and Parent's and Alumni Questionnaire Data)

Facilities	Principals (N = 16)			Teachers (N = 1069)			M1 Students (N = 1425)			MS 3 Students (N = 1429)			MS 5 Students (N = 1137)			Parents and Alumni (N = 183)		
	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N
School site	3.44		16	3.22		999	--		--	--		--	--		--	3.55		183
School buildings	3.06		16	2.91		1000	--		--	--		--	--		--	3.13		182
Shops	3.31		16	2.96		1035	3.59		1412	3.29		1410	3.03		1118	3.26		182
Laboratories	2.69		16	3.07		1032	3.62		1406	2.98		1408	3.01		1129	3.09		181
Classrooms	3.00		16	2.83		1041	3.93		1380	3.50		1407	3.20		1127	3.08		183
Guidance facilities	2.81		16	2.64		1037	3.30		1407	2.70		1406	2.48		1123	2.89		179
Gymnasia	1.00		16	1.76		1037	2.51		1394	1.88		1410	1.69		1126	1.93		181
Recreation facilities	2.13		16	1.84		1040	3.00		1404	2.31		1410	2.02		1125	2.39		179
Cafeteria	2.13		16	2.16		1047	3.07		1404	2.51		1407	2.44		1130	2.64		183
Teacher washrooms	2.69		16	2.40		1052	3.53		1413	3.40		1406	3.24		1121	2.78		183
Student washrooms	2.50		16	2.46		1046	3.30		1408	2.87		1413	2.58		1124	2.78		183
Staff housing units																		
Quantity	2.06		16	1.47		993	--		--	--		--	--		--	--		--
Quality	3.00		16	2.31		982	--		--	--		--	--		--	--		--
Maintenance	3.13		16	2.52		981	--		--	--		--	--		--	--		--

In connection with physical facilities, information supplied by the Office of Special Projects concerning teachers' houses indicates that the criteria set by the Department of General Education were used, as follows: (1) for provincial schools the number of teachers' houses was to be 30% of the number of teachers, and (2) for district and sub-district schools, the proportion was to be 35%. After the RSS Project had been implemented, the Department supplied more teachers' houses to non-Project schools, but the RSS Project could not increase the number of teachers' houses because of the funding limitations of the contract with the World Bank. For students' washrooms, the criteria is 1 for 50 students, which is in fact, insufficient,

1.3 Adequacy of Equipment, Supplies and Furniture

Perceptions of the adequacy of equipment, supplies, tools and furniture will be found in Table 88.

Concerning equipment, principals rated the adequacy from the mid-point to somewhat above. Concerning supplies and tools, all sample groups rated the adequacy of these at the mid-point to somewhat below, with the exception of the M1 students, who rated them considerably above the mid-point. Concerning the adequacy of furniture, all groups with the exception of teachers and parents and alumni rated these as somewhat above to considerably above the mid-point. Teachers rated furniture somewhat below the mid-point and parents and alumni, slightly above.

Perceptions of inadequacies, from free response questionnaire data, indicated that 114 teachers and 4 principals thought machines for office and shop were inadequate. One principal and 17 M1 students thought gymnasia equipment was needed. A shortage of general supplies was cited by 220 teachers (21% of the sample), 18 MS 3, 5 students, and 21 parents. A shortage of shop tools was cited by 39 teachers and 14 M1 students. Inadequate furniture was noted by 15 of the 16 principals, and 112 teachers (11% of the sample).

Table 88

Adequacy of Equipment, Supplies, Tools and Furniture

(Principal's, Teacher's, Student's and Parent's and Alumni Questionnaire Data)

	Principals (N = 16)			Teachers (N = 1069)			M1 Students (N = 1425)			MS 3 Students (N = 1429)			MS 5 Students (N = 1137)			Parents and Alumni (N = 183)		
	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N
Equipment																		
Type	3.25	0.93	16	2.70	0.85	992	--	--	--	--	--	--	--	--	--	--	--	--
Quality	3.19	0.91	16	2.70	0.86	995	--	--	--	--	--	--	--	--	--	--	--	--
Quantity	3.00	0.97	16	2.55	0.86	994	--	--	--	--	--	--	--	--	--	--	--	--
Supplies and Tools																		
Shop supplies	2.94	1.24	16	2.[illegible]4	0.94	1037	--	--	--	--	--	--	--	--	--			
Classroom supplies	2.94	1.24	16	2.38	0.85	1045	--	--	--	--	--	--	--	--	--	2.87	1.03	173
General supplies	2.81	1.11	16	2.48	0.79	1041	3.50	1.04	1381	2.70	1.09	1397	2.60	1.10	1128			
Tools	3.00	0.97	16	2.49	0.83	1027	3.62	1.01	1402	2.77	1.07	1411	2.67	1.06	1124	3.03	0.99	180
Furniture																		
Type	3.38	0.89	16	2.75	0.81	985												
Quality	3.38	0.81	16	2.72	0.78	988	3.83	1.11	1406	3.39	1.16	1411	3.26	1.13	1125	3.02	0.95	178
Quantity	3.25	1.00	16	2.69	0.81	988												

It can be concluded that the general level of equipment, supplies, tools and furniture is perceived as close to the mid-point of adequacy, with the most apparent inadequacies being in general supplies and furniture. Once again, the consistently lower rating pattern of the teachers was quite evident.

1.4 Utilization of Specialized Facilities

The utilization of specialized facilities will be found in Table 89 in terms of enrolment per type of specialized teaching areas and percentage of unilization of these areas.

In general terms, the schools had an average of 260 students per area of specialized facilities, with a range from 146 in Leathercraft to 582 in Office Practice, and the schools reported 0.75 to 2.00 units per specialized facilities area.

Utilization of these specialized facilities was examined under two headings: (1) utilization of available seats; and (2) utilization of available periods.

1.4.1 Utilization of the Seats Available. Most shops or rooms were utilized at an average of 91.6% of their capacity, with 82.8% in Planting as the lowest and 99% in Dressmaking as the highest. It may be summarized that students occupied up to almost 92% of the seats available in each specialized unit.

1.4.2 Utilization of the Periods Available. On the basis of weekly operation, the average number of periods per week actually utilized was about 25 out of 36, or about 69%. Lowest utilization in this aspect was in Office Practice (about 38%) and Leathercraft (about 54%). The next group of specialized units being utilized in the 60 - 64% range was Accounting (64%), Drafting (64%), and Handicraft (64%). At the highest range of percentage of utilization were Planting, Animal Husbandry, and Agriculture (in general). All the rest fell into an acceptable bracket of 65% or more. To sum up the degree of utilization of specialized shops or rooms, Table 90 may be useful:

Table 89

Utilization of Specialized Instructional Facilities

(Principal's Questionnaire Data)

Type of Specialized Teaching Areas	Average number of shops/rooms per school	Average capacity of shops of rooms (no. of students)	Average class size (no. of students)	Percentage of utilization by number of seats	Average number of periods per week, shop or classroom available for use	Average[1] number of periods per week actually in use	Percentage of utilization by number of periods
Food	1.38	31.31	26.62	85.0	36.15	25.08	69.4
Dressmaking	1.31	25.23	24.92	99.0	36.15	24.23	66.5
Office Practice	1.29	32.86	32.00	97.4	36.43	14.00	38.4
Typing	2.00	38.00	33.88	89.2	36.25	23.63	65.2
Accounting	0.75	40.00	33.75	84.4	31.88	20.38	63.9
Planting	1.00	41.22	34.11	82.8	36.67	34.67	94.5
Animal Husbandry	0.75	37.50	34.50	92.0	35.63	32.00	89.8
Auto Mechanics	1.36	27.91	25.91	92.8	36.82	28.55	77.5
Electricity	1.00	27.87	26.00	93.3	36.33	26.20	72.1
Woodwork	1.00	27.33	23.75	86.9	36.67	24.67	67.3
Metalwork	1.00	26.88	22.75	84.6	36.88	24.88	67.5
Drafting	1.13	29.87	26.40	88.4	36.33	23.13	63.7
Other (Specify)							
Agriculture	1.67	36.67	34.00	92.7	36.67	31.67	86.4
Handicraft	0.83	27.67	25.33	91.5	35.83	22.83	63.7
Leathercraft	1.00	26.25	23.25	88.6	35.00	18.75	53.6
Mean		31.09	28.48	91.6	35.98	24.98	69.4

---

[1] Figures shown do not include the use of teaching areas for adult education, or schools operating two shifts per day. Inclusion of these would obviously increase the percentage of utilization.

Table 90

Summary of Utilization of Specialized Facilities by Periods per Week

(Principal's Questionnaire Data: N = 16)

Degree of Utilization	Percentage	Area of Specialized Facility
Very high (85% - over)	94.5 89.8 86.4	Planting Animal Husbandry Agriculture (general)
High (75% - 84%)	77.5	Auto Mechanics
Medium (65% - 74%)	72.1 69.4 67.5 67.3 66.5 65.2	Electricity Food Metalwork Woodwork Dressmaking Typing
Low (55% - 64%)	63.9 63.7 63.7	Accounting Drafting Handicraft
Very low (54% - under)	53.6 38.4	Leathercraft Office Practice[1]

---

[1] Low utilization of the specialized areas for Office Practice may be caused in part by the fact that this course can be offered in part in regular classrooms, and also by the occasional use of Office Practice equipment in the school office.

1.5 Comments on Physical Facilities in the Schools

A very substantial building and equipping program was carried out over a period of four years by the Department of General Education for the RSS Project. Part of the construction and equipping program was financed by the World Bank loan, part by the Department of General Education itself. In spite of this massive and successful effort to increase the availability of instructional and other space, many ratings of adequacy below the mid-point were received from all samples who completed questionnaires.

The researchers, in their site visits to eight of the RSS sample schools, and to some not in the sample, were impressed by the facilities in most schools, and find the negative comments from the samples somewhat puzzling. Possibly the response was caused by sheer demand for more of the same facilities to serve the community, rather than being a criticism of the facilities already supplied.

In terms of adequacy of equipment, supplies, tools and furniture, a similar pattern, though not of such a great range, emerged as for the site and buildings ratings. Once again, teachers' ratings were the lowest, not one rising above the mid-point,and M1 students', the highest.

Concerning utilization of the facilities, a generally good level of utilization of about 65% was noted, in a wide range from 38% to 99%. Although some extenuating factors are present in some of the low-utilization areas, the situation merits further study.

2. SCHOOL FINANCE

In the complex area of school finances, information was requested from the principals of the 16 sample schools concerning school revenues, school fees, percentage of support from various sources, management of the finances of the school, and the school budget. Considerable difficulty was experienced in getting complete, consistent, and comparable data from the questionnaire responses. At each of the site visit schools, and in three of the remainder of the sample schools, intensive discussions were conducted by the team with the principals of these schools concerning the interpretation of the questionnaire items. No discussions were possible with the principals of the remaining five schools in the sample, and interpretations of terms may thus vary considerably among the sample schools. However, the Office of Special Projects made diligent efforts to obtain consistency among the respondents through returning questionnaires to the schools for elaboration or explanation.

A considerable amount of additional data were provided by the Office of Special Projects from Departmental records, but breakdowns of revenue or expenditure by school were not available. As a result, the information presented here will be drawn partly from the responses of the principals on their questionnaires, and partly from OSP data. Because of differences in interpretation of terms such as "government budget" and "locally-raised funds," data presented may not be strictly comparable, but are presented as analyzed from the data available.

2.1 School Revenues

The questionnaire item relating to school revenue read, "Indicate the percentage of annual revenue from your school which is received from the sources listed." The sources were identified as Ministry budget, student fees, foundations, other (specify), and the percentages were expected to add to 100%. A summary of the responses will be found in Table 91.

Table 91

Sources of School Revenue

(Principal's Questionnaire Data: N = 16)

	Ministry of Education Budget (N = 11)	School Fees (N = 16)	Foundations (N = 7)	Other (Specify) (N = 8)	Total
Range of percentages	3 - 95	4 - 99	1 - 10	1 - 10	100%
Mean percentages	33.7	62.3	1.4	2.6	100%

Out of the 42 percentages used to develop this table, only ten were similar among the schools, indicating the variety of sources and proportions of revenue present in the sample schools. Sources named under "Other" were: Co-operative Activities, rent of food shops, donations, Parent-Teacher Association, and a cattle-raising project. Since the data from this item are perceptions of proportions, they can be considered a rough index only. Complete and comparable data on a school-by-school basis were not available from the schools or from the Department of General Education in connection with school revenues.

2.2 School Fees

A tabulation of the range of fees charged by the RSS schools for the various grade levels will be found in Table 92. As will be recalled from Table 91, fees constitute approximately 62% of school revenues. The average fee in the RSS schools over all grades from M1 to MS 5 was ฿ 318.67 (1979 figures), in a range extending from ฿ 210 to ฿ 450. The mean is comparable to that in Bangkok schools (331.31 in 1977) and provincial schools (318.10 in 1977).

Regarding school fee rates, the rates used in any school are based on the curriculum and also the economic situation of the school community and with the approval of the Ministry. The Ministry has provided Rate Scales for each level, and the schools make a selection with the approval of the Ministry. Rate changes are possible but rarely approved. The distribution of secondary school fee rates in 1977 for the 1960 Lower Secondary Curriculum is presented in Table 143 (Appendix L) for a sample of 81 Bangkok and 78 provincial schools.

Concerning perceptions of the level of fees, data from all sample groups will be found in Table 93. Principals and teachers perceived fees slightly below to somewhat below the mid-point of "about right." Students perceived fees as slightly above to somewhat above "about right." Parents and alumni perceived them as considerably above the mid-point, with 99 out of 179 respondents thinking them "too high" or "much too high."

Table 92

Range of Fees Paid in RSS Schools, 1979 School Year

(Principal's Questionnaire Data: N = 16)

Fee in Baht		Grade Level				
	M1	M2	MS 2	MS 3	MS 4	MS 5
	N	N	N	N	N	N
210	--	--	1	1	--	--
220	--	--	1	1	--	--
230	1	1	1	1	1	--
250	1	1	--	--	--	--
270	1	1	4	4	--	--
275	--	--	1	1	--	--
300	5	5	--	--	--	--
310	--	--	2	2	5	5
320	1	1	2	2	--	--
350	4	4	1	1	2	2
360	--	--	2	2	3	2
370	--	--	1	1	--	--
400	3	3	--	--	3	3
450	--	--	--	--	1	1
N/A	--	--	--	--	1	3
Total	16	16	16	16	16	16
Mean Fee	323.1	323.1	281.6	281.6	347.3	355.4
Grand Mean of Fees in RSS Schools: ฿ 318.67						

Table 93

Perceptions of All Sample Groups of the Level of School Fees

(Principal's, Teacher's, Student's, and Parent's and Alumni Questionnaire Data)

	Principals (N = 16)			Teachers (N = 1069)			M1 Students (N = 1425)			MS 3 Students (N = 1429)			MS 5 Students (N = 1137)			Parents and Alumni (N = 183)		
	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N
1. Much too low	--	--	1	--	--	33	--	--	4	--	--	4	--	--	4	--	--	0
2. Too low	--	--	5	--	--	116	--	--	9	--	--	13	--	--	16	--	--	3
3. About right	--	--	10	--	--	742	--	--	1117	--	--	1009	--	--	879	--	--	77
4. Too high	--	--	0	--	--	91	--	--	176	--	--	254	--	--	173	--	--	60
5. Much too high	--	--	0	--	--	6	--	--	66	--	--	114	--	--	36	--	--	39
No response	--	--	0	--	--	81	--	--	53	--	--	35	--	--	29	--	--	4
Group Data	2.56	0.63	16	2.92	0.60	1069	3.22	0.55	1425	3.33	0.65	1429	3.20	0.52	1137	3.75	0.81	183

2.3 Expenditures

The Principal's Questionnaire asked principals to respond to the following item: "In each of the following areas, indicate the percentage of financial support provided by the sources noted." A summary of the responses of the principals, and further supporting data from the Department of General Education, will be found below.

2.3.1 Capital Expenditures. Principals' perceptions of the sources of support for capital expenditures are set forth in Table 94. Considerable variation was found from school to school in the proportions of costs borne by different sources. For example, purchase of school sites by the Ministry varied from 10% to 100%, and by the schools, from 80% to 100%. Between 10% and 100% of some school sites were obtained through sources other than the Ministry or the school. It was assumed that some of these represented donations of land to the school.

Table 94

Percentage of Responsibility for Capital Expenditures in RSS Schools

(Principal's Questionnaire Data: N = 16)

Area of Expenditure	Source of Funds in Percentages				
	Ministry	School	Students	Other	Total
School Site Purchases	39.79 (10-100)*	44.85 (80-100)	--	16.36 (10-100)	100%
School Building Costs	89.16 (75-100)	2.48 (5-20)	--	8.36 (5-10)	100%
Furniture Purchases	32.00 (10-100)	65.67 (25-100)	--	2.33	100%
Equipment and Machinery Purchases	35.99 (20-100)	63.53 (10-100)	--	0.48	100%
Tools	46.00 (20-110)	52.33 (20-100)	1.33	0.34	100%

* Figures in brackets represent range of percentages

In terms of data from the Office of Special Projects of the Department of General Education, capital expenditures for the 32 RSS schools are set forth in Table 95, under the headings, Civil Works, Furniture, and Equipment. The total cost of civil works (buildings and sites) was ฿ 273,666,493.10; Furniture, ฿ 34,481,064; and Equipment, ฿ 57,250,383. In all, the capital expenditures for the RSS Project amounted to ฿ 365,397,940 or approximately US $ 18,269,897.

2.3.2 Recurrent (Operating) Expenditures. Responses of principals to the item representing recurrent expenditures will be found in Table 96. As with capital expenditures, reports from principals indicate a wide range of proportions from the various possible sources of money for recurrent expenditures. The widest variations occur in all types of maintenance expenditures, responsibility for which varies considerably from school to school. In all these areas, however, a measure of local community support was reported, especially in school site maintenance. The schools themselves also assumed major shares, in some cases, of maintenance costs of all kinds.

The Principal's Questionnaire did not ask for actual baht figures for recurrent expenditures, but the Office of Special Projects of the Department of General Education provided some data for the years 1974 - 1978. Table 97 sets forth the recurrent costs, (not including teachers' salaries and wages before implementation), from 1974 to 1978. Data for teachers' salaries and wages were not available for 1974 - 1977 inclusive, but for 1978 the amount was ฿ 96,798,000, which, when added to the ฿ 29,742,000 shown in Table 97 gives a total recurrent cost of ฿ 126,540,000 for 1978. This amount provided secondary education from M1 to MS 5 for 58,875 students.

Table 95

Values of Furniture and Equipment Installed at RSS Schools

(Office of Special Projects Data)

Item No.	School	Cost of Civil Works (Baht)	Value of Furniture (Baht)	Value of Equipment (Baht)
1	Satri Nonthaburi	7,477,000	1,009,100	1,642,745
2	Wat Khema-Pirataram	4,354,980	910,460	2,252,799
3	Samutprakarn	9,522,550	1,071,900	2,252,799
4	Rayong Wittayakom	12,150,000	1,412,285	2,316,963
5	Bangpakong	4,214,160	542,755	1,046,262
6	Chomsurang Upatham	9,870,000	1,119,415	1,580,196
7	Singburi Wittayakom	10,380,000	1,254,950	2,575,839
8	Surat-Thani	11,300,000	1,378,930	2,560,066
9	Sriyaphai	13,179,000	1,193,420	2,598,254
10	Chumpae Suksa	7,300,000	932,889	2,151,069
11	Tung Song	5,375,234.20	811,220	2,334,314
12	Benjamarachuthit	9,639,890	1,117,316	2,598,254
13	Nari-nukun	10,143,600	1,403,517	1,623,435
14	Mattayom Bang Baw	6,068,996.90	537,415	1,228,765
15	Benjamathep-Uthit	12,268,680	1,434,322	1,623,436
16	Satri Kanchanaburi	7,393,700	969,639	1,477,524
17	Tatum-Prachaserm Wittaya	8,650,000	1,090,000	1,360,184
18	Srisongrak Wittaya	8,300,000	1,035,918	1,201,654
19	Rahtborika-Nukroh	9,902,312	1,256,837	1,668,295
20	Muangphon Pittayakom	9,300,000	1,240,000	2,126,359
21	Pan-Phrao	7,200,000	980,000	1,201,656
22	Yangtalad Wittayakarn	9,400,000	1,240,786	2,059,215
23	Phon-thong Pattana Wittaya	8,000,000	1,022,621	1,360,189
24	Prasart Wittayakarn	8,400,000	1,050,369	1,360,189
25	Pua	7,230,000	950,000	1,076,825
26	Mae-tang	6,722,240	910,000	1,318,167
27	Chae-hom Wittaya	6,990,000	955,000	1,156,080
28	Ranode Wittaya	10,200,000	1,227,000	2,203,882
29	Ladyao	6,500,000	894,000	1,318,167
30	Photharam	10,660,000	1,245,000	2,047,883
31	Hoiyod	8,022,520	1,230,000	2,203,885
32	Damnern-Saduak	7,351,630	1,054,000	1,725,033
	TOTAL	273,666,493.1	34,481,064	57,250,383

Table 96

Percentage of Responsibility for Recurrent Expenditures in RSS Schools

(Principal's Questionnaire Data)

Recurrent Expenditures	Ministry	School	Students	Other	Total
Teaching staff (permanent)	100	--	--	--	100%
Teaching staff (temporary)	--	100	--	--	100%
Janitors (permanent)	100	--	--	--	100%
Janitors (temporary)	0%-N=15 100%-N=1	87.78 (90-100)*	--	1.11	100%
School secretaries and clerks	55.56 (1-100)	43.33	--	1.11	100%
School site maintenance	12.05 (15-100)	67.43 (10-100)	0.33 (5)	20.29 (5-100)	100%
School building maintenance	17.87 (5-100)	80.64 (5-100)	--	1.49 (10)	100%
Furniture maintenance	20.53 (15-90)	78.42 (50-100)	--	1.04	100%
Equipment and machinery maintenance	12.00 (10-95)	87.67 (50-100)	--	0.33	100%
Materials and supplies	10.00 (5-60)	88.33 (35-100)	1.33 (1-10)	0.34	100%

* Figures in brackets represent range of percentages

Table 97

Recurrent Costs (not including teachers' salaries and wages before implementation) in RSS Schools, 1974 - 1978)

(Office of Special Projects Data)

(in Million Baht)

	1974	1975	1976	1977	1978	Total
Salaries	2.598	8.042	13.522	16.673	24.277	65.112
Wages	0.162	0.542	1.025	1.488	1.690	4.907
Honoraria	0.050	0.090	0.100	0.110	0.120	0.470
Travel and transportation	0.800	1.400	1.900	2.100	2.300	8.500
Operating supplies	0.700	1.000	1.270	1.400	1.355	5.725
Contribution	1.198	3.827	3.763	2.700	--	11.488
Total	5.508	14.901	21.580	24.471	29.742	96.202

3. MANAGEMENT OF SCHOOL FINANCES

The Principal's Questionnaire posed this question in connection with the management of school finances: "Describe the procedures used in managing the money in your school, under the headings in the table below." The headings concerned records of receipt of money; records of expenditure of money; type of annual report to the Ministry of Education; auditing procedures, internal, and auditing procedures, external. Responses were sub-divided under three further categories -- central budget money, school fees, and locally-raised money.

Responses from principals usually referred to the regulations of the Department of General Education. The Office of Special Projects provided the following statement of Department Regulations.

3.1 Personnel in Charge of Finance and Budgeting

Secondary schools are allocated relatively small budgets, therefore, budgeting plays a secondary role in school management. The staff in charge of the school budget is often responsible for supplementary fees as well. This staff includes:

Chief of Supplies staff
Assistant-Principal for Business Affairs
Finance and Accounting staff
Supplies staff

3.2 Control of Expenditures

The principal is given the following guidelines to make plans for the spending and supervision of supplementary fees, and to provide for audit control:

3.2.1 At the end of each working day there must be a cash count and a revision of all documents in lieu of money (cheques, drafts and letters of credit). The daily balance must tally with that in the cash book. A signature must be affixed on this daily report.

3.2.2 At the end of each month, each payment voucher for official use must be examined and checked against the balance in the overall budget account book which equals to the balance in the "budget" column in the cash book.

3.2.3 At the end of each month, each category of non-budgetary moneys must be checked for its balance as shown in the overall "non-budgetary" column in the cash book.

3.2.4 Each requisition of the budget must be controlled in accordance with payment vouchers as required in payment voucher control book.

3.2.5 Each requisition of the budget from the agency in control of the school must be examined for its receipt as shown in the payment book for official use.

3.2.6 The amount of money acquired must be checked against the records in the cash account or bank account. If the sum is accurate, the auditor must show the total of the amount received according to the sum total of receipt vouchers recorded on that day on the duplicate of the last receipt and affix his/her signature thereon.

3.2.7 After business hours, the auditor must check the particulars of all withdrawals on that day against the records of cash account or bank account. If this is accurate, the auditor must affix his/her signature on the balance of the account.

Responses on the Principal's Questionnaires and in interviews produced the following typical pattern of day-to-day financial management in the schools, insofar as personnel are concerned:

1. A Business Assistant acts as bookkeeper, with two full-time assistants and two part-time teachers.
2. A Finance Committee, composed of the Principal, three Assistant Principals and Department Heads, guides the finances of the school.
3. A Committee of three selected senior teachers also has authority to control financial matters.
4. The Business Assistant and three teachers help to check the accounts every day.

3.3 Audit Procedures, Internal

In this section, the term "internal" refers to the Department of General Education, not the school itself.

3.3.1 Schools in the central region have their accounts audited by the Department's Internal Auditor.

3.3.2 Schools in the provinces, which submit their requisition to the provincial Education Office, have their accounts audited by the Provincial Internal Auditor.

3.3.3 Schools in the provinces, which submit their requisition to the Amphur (district) Education Office, who further submits the request to the Provincial Education Officer, have their accounts audited by at least two district officers of ranks no lower than grade 2, who are appointed by the District Officer to take turn as a committee for the audit of district finance for each 3-month period.

3.4 Audit Procedures, External

3.4.1 Schools in the central region have their accounts audited by the Audit Council attached to the Ministry of Education.

3.4.2 Schools in the provinces have their accounts audited by the provincial Audit Council.

3.5 Reporting

A number of different kinds of reports on financial matters are made by the schools. These are:

3.5.1 Daily balances are reported on the last day of the month.

3.5.2 Balance of moneys according to categories.

The school forwards both reports 3.5.1 and 3.5.2 to the requisitioning agency which is also the controlling agency. A copy of the reports are kept as evidence at the school. If the school is under the jurisdiction of a district or a sub-district, a report must also be made to the district office. The report must be completed by the fifteenth of the following month.

3.5.3 A report on receipt and payment of supplementary fees must be submitted to the Office of Audit Council for inspection within 30 days of the last day of that month.

3.5.4 A copy of the report on receipt and payment of supplementary fees for the months of March and September, showing the amounts of payment of each period broken down according to expenditure categories, must be forwarded to the Comptroller General's Department and the Budget Bureau within 30 days of the last day of that month.

3.5.5 A report on the issuing of official receipts must be submitted to the Finance Division and to the Office of the Provincial Education Officer by the school in central and provincial regions respectively. It must be stated clearly as to the numbers of receipt books and their running numbers as well as their use within Oct. 31 of the following fiscal year.

3.5.6 The Principal appoints one or several officials of the school who are not supplies staff to examine the acquisition and distribution of annual supplies. The actual report, submitted by these examiners, must be forwarded to the Director-General of the Department of General Education and the Governor of the province by the schools in the central and provincial regions respectively. A copy of the report must be sent to the Audit Council.

3.6 School Budget

The sixteen sample schools were asked to submit a copy of their budget for the school year 1979. Eleven schools returned usable data, while the remainder submitted data which were partially complete. From the information available, it was not possible to tabulate consistent, accurate and comparable data to reflect the budgeting procedures and outcomes in the sixteen sample schools. An attempt was made to do so, but at the Academic Review stage of this study, it was generally agreed that the tabulation did not shed much useful light on budgeting in the RSS schools.

However, from questionnaire responses and interviews with principals, it appears that the following steps are normally taken in preparing the budget for the school:

3.6.1 A specific sum is requested by the school from the Department of General Education.

3.6.2 School fees are budgeted by proposals received from department heads.

3.6.3 Other expenditures are budgeted as specified by the donor.

3.6.4 At the end or beginning of the school year, the following sequence of events occurs:

(a) Evaluation of the previous year's finances.

(b) Receipt of Project Proposals from Departments.

(c) Screening of Departmental budget plans by a Special Committee or Budget Committee, chaired by the principal. If the Department plan is not viable, the Committee will reduce the budget to bring within the funds available.

In relation to Department needs, many teachers on interview suggested that the individual departments should be responsible for setting budgets in their areas. In this way, the perceived inequities in appropriation of funds could be avoided.

3.7 Comments and Recommendations from Principals

On interview, a few principals made comments and recommendations concerning financial management and possible sources of increased financial support for the schools. These were:

3.7.1 The Department of General Education should not control the use of income from local school activities.

3.7.2 The government should have money for the needs of schools, especially operational costs.

3.7.3 School fees should be increased, except where parents are of low socio-economic status.

3.7.4 The Department of General Education should supply extra funds for schools with fewer than 20 classrooms, as well as for larger schools.

3.8 Observations on the Management of School Finances

Usable data on the topic of management of school finances were the most difficult to obtain of any topic researched in this study. Two main problems emerged in data collection -- incomplete information and considerable confusion in terminology. It is difficult to determine whether the latter was caused by translation problems from Thai to English, or from actual differences in usage of terms from school to school and respondent to respondent.

One of the major terminological problems was the definition and use of the English word "budget." At times it was used in the customary sense of a plan for the expenditure of money over a definite period of time in accordance with needs and expected revenues. At other times the word "budget" was used to refer to actual money, without any reference to the school's plan for expenditure.

Other terms seemed to fluctuate in usage. Among these were the separation of "government budget" from "salaries and wages," which latter are paid in some categories, e.g. teachers, entirely from central government sources. The term "administration" as an area of expenditure seemed to be rather large in proportion to other categories, with no opportunity provided the researchers to discover what was included under that term. In sum, throughout the responses to the items on school finances, marked differences in perceptions of the meaning of financial terms was evident. This increased greatly the problem of comparing, tabulating and reporting in this area.

Development of common understandings of accounting terms is seriously needed, together with uniformity in methods of preparing three essential documents according to accepted accounting practice, namely, (1) budgets, (2) statements of revenues and expenditures, and (3) statements of assets and liabilities. Such knowledge and skill could be readily obtained in a relatively short period of intensive in-service education for school personnel involved in financial management of the schools.

4. SUMMARY COMMENTS

This chapter has presented findings under two main headings -- Physical Facilities and School Finance.

Under Physical Facilities, 21 secondary schools received extensions to their physical plant under a World Bank loan. These were known in the plan as "D" schools. Eleven other schools received additional furniture and equipment, from the World Bank loan, and buildings at the expense of the Department of General Education. These were known as "E" schools. Detailed plans were available to the research team for the "D" schools, but not for the "E" schools. However, in sum, a massive building and equipping program produced a total of 1,379 "units," defined as: academic or Practical Arts classrooms or instructional areas; teachers' houses; sanitary facilities; and cafetoriums. Although delays were encountered in construction, all were completed and equipped by early 1979. Actual building exceeded the plans in some schools.

Ratings of the adequacy of the physical plant varied considerably between types of buildings and category of respondent. In the general category of "buildings" ratings were at or near the mid-point of adequacy. In specific buildings, ratings ranged from very much below the mid-point to considerably above it. Inadequacies in buildings were seen in gymnasia, recreation facilities, cafeterias, washrooms, teachers' houses, and maintenance of teachers' houses. Concerning equipment, supplies and furniture, ratings were close to or above the mid-point of adequacy. Inadequacies cited lay in general supplies and furniture.

Utilization of facilities was reported as generally good. All except two facilities were utilized 65% of the time or more, in a range from 94.5% to 38.4%. Highest degrees of utilization were found in Planting, Animal Husbandry, Agriculture and Auto Mechanics. Lowest degrees of utilization were found in Accounting, Drafting, Handicrafts, Leathercraft and Office Practice. Some extenuating circumstances affect some of the low degrees of utilization.

Under the topic of School Finance, considerable difficulty was experienced in obtaining complete, consistent, and comparable data. Some of this was due to marked variations in the definitions of accounting terms as used by school and central office personnel involved in financial management. Because of this, as well as incomplete returns from the schools, it was not possible to obtain sufficient data on operational revenues and expenditures to report on these, or on school budgeting, in a meaningful manner.

The Office of Special Projects supplied precise details on Ministry regulations concerning the management of school finances. This statement revealed extensive controls, reporting and auditing of school accounts by Ministry central office personnel or provincial personnel. Budgeting in the schools was based on requests from Departments in the schools, screened by a committee chaired by the Principal. Daily handling of school funds accounts appeared to be thorough and was monitored by a teachers' committee.

Concerning school revenues, principals estimated that about 34% of their revenues came from the Ministry of Education, 62% from school fees, and the remainder from Foundations, donations or school activities.

The average school fee charged in the RSS Project schools was ฿ 318.67 (1979), comparable to the average fee for secondary schools in Bangkok and for provincial schools. The range of fee rates was set by the Ministry, but some local discretion was allowable. Principals and teachers perceived the fees as too low; students thought they were high; and parents thought they were too high or much too high.

With reference to Capital Expenditures, principals reported their perceptions of the percentage of responsibility borne for these among Ministry, School, Students, and "Other." Proportions of responsibility varied widely from one school to another, reflecting differing situations and differing practices.

The Office of Special Projects supplied consistent and complete data on the expenditures for civil works (sites and buildings), furniture and equipment. The total for the RSS Project was ฿ 365,446,005, or US $ 18,262,300.

With reference to Operating Expenditures, principals reported their perceptions of the percentage of responsibility borne for these by various sources. The reports again revealed wide variations from school to school. Considerable community support was evidence in paying for these operational costs.

The Office of Special Projects supplied some data on recurrent or operating expenditures. Figures for 1978 revealed operating expenditures of ฿ 126,540,000 to provide educational services for 58,875 students from

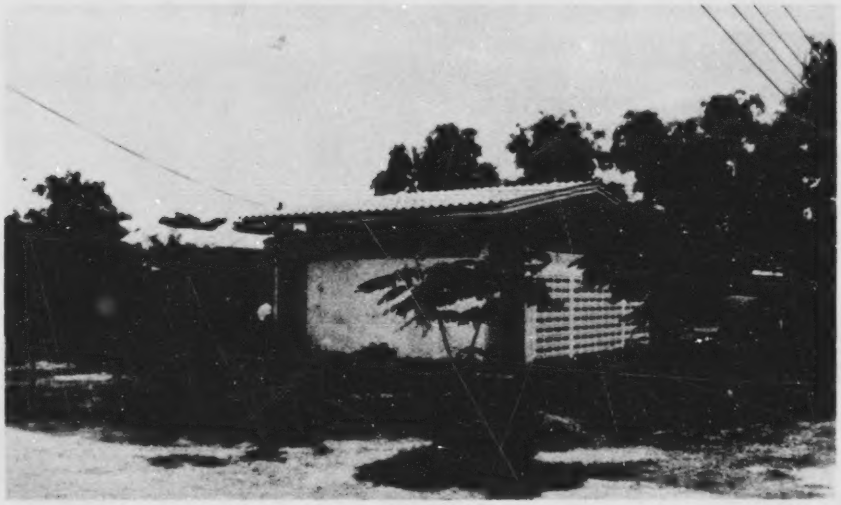
M1 to MS 5 in the RSS Project schools.

In sum, this chapter has presented data on physical facilities and financial management in the RSS Project. An extensive program of extending and equipping rural secondary schools was carried out successfully between 1974 and 1979. Due to the demand for places in the schools, however, the increased facilities were perceived as insufficient to meet the needs of the communities and of the school program itself.

Financial management of the schools was under strict Ministry regulations, with some allowance for local discretion. Ministry of Education payments and school fees accounted for approximately 95% of school revenues. A pressing need was found for the reaching of common understandings concerning accounting terms and accounting practices in the Thai setting. Development of uniform reporting procedures by schools would also be desirable.

From the data available, it appeared that the physical plant for the RSS schools met and exceeded plans, (although at greatly escalated costs compared with the original estimates), and that the financial management of the RSS schools was reasonably adequate, with some upgrading of knowledge and skills needed.

* * * * * * * * * * * *



Typical Washroom (Sanitary) Facilities

CHAPTER SIX

FINDINGS: OUTCOMES OF THE R.S.S. PROJECT

Assessment of the outcomes of educational projects is difficult because of complexity of the educational enterprise, the length of time for some effects to become visible, and the difficulty of obtaining evaluation is necessary and useful, if only to provide a base for further evaluation. A massive change to an educational system, such as the diversification of secondary education, cannot truly be assessed for impact until one generation of students has passed through the system and into employment or further education. This chapter then will attempt to describe some of the initial and visible outcomes of a very recent project when measured in terms of school generations.

A deliberate selection of possible variables was made to present the findings of this chapter. They are reported in terms of these outcomes: extent of achievement of the schools of general and specific objectives; success of the RSS schools in career preparation for MS 3 graduates; career choices and influences; equality of educational opportunity; satisfaction with the school; school rating; comparison with local schools and Bangkok schools; success in promoting national unity; school's best features; school's worst features; needed school changes; student achievement; estimated cost per student; student follow-up; The University of Alberta Training Program.

1. EXTENT OF ACHIEVEMENT OF GENERAL OBJECTIVES OF THE RSS SCHOOLS

In order to assess the extent of achievement of objectives, the various objectives will be re-stated here. The general objectives of the RSS Project, as drawn from official documents, covered three broad areas, namely:

1. To upgrade the quality of secondary schools in provincial towns and rural districts to a level that is competitive with the best schools in the Bangkok-Thonburi[1] area;
2. To provide students with specific programs so as to meet the aptitudes and abilities of each individual student; and
3. To satisfy the economic and social demands of the country in consonance with the Third National Economic and Social Development Plan (1975-79).

1.1 General Objective #1: To upgrade the quality of secondary schools in provincial towns and rural districts to a level that is competitive with the best schools in the Bangkok-Thonburi area.

Table 98 sets forth the mean scores of the perceptions of principals, teachers and parents and alumni of the degree of success achieved by the RSS schools concerning Objective #1.

All ratings fell somewhat-above to well-above the mid-point of success in achieving the objective, except for the very low rating of the principals on the upgrading of the quality of the schools. Principals' ratings were somewhat-below the mid-point, with one of the highest standard deviations in this study. Obviously a considerable difference of opinion exists among principals, with some very low ratings on achievement of the objective of upgrading the schools. This is a puzzling finding in view of the consistently high ratings of principals in related queries.

---

[1] The Metropolitan District of Bangkok-Thonburi, as is is officially called, comprises the twin cities of Bangkok (Krung Thep) on the east side of the Chao Phya River, and Thonburi on the west side. The two cities form what is commonly called "Bangkok," the capital of Thailand. It has a population of 4,702,300 (1977 Census).

Table 98

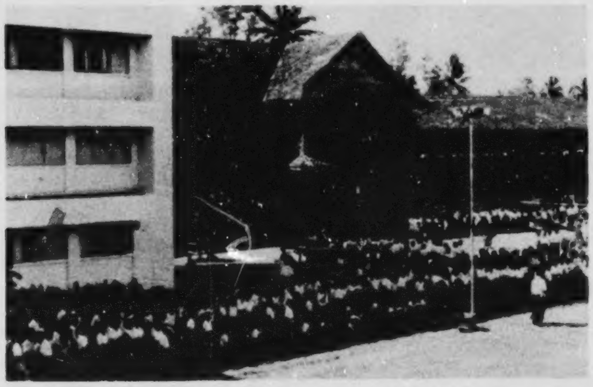
Extent to Which the Objective of Upgrading the Quality of Schools was Being Achieved in the RSS Schools

(Principal's, Teacher's and Parent's and Alumni Questionnaire Data)

Objective #1	Principals (N = 16)			Teachers (N = 1069)			Parents & Alumni (N = 183)		
	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N
(a) Being emphasized	3.94	1.00	16	3.42	0.85	1052	3.44	0.83	178
(b) Being met	2.75	1.29	16	3.05	0.71	1051			
(c) Matching local needs	3.94	0.68	16	3.33	0.87	1050			
(d) Should be emphasized	4.38	0.72	16	4.07	0.84	1046			

1.2 General Objective #2: To provide students with special programs so as to meet the aptitudes and abilities of each individual student.

Table 99 presents the perceptions of the three sample groups of the degree of success achieved by the RSS schools concerning General Objective #2. Ratings of all groups fell in a range from somewhat-above to well-above the mid-point.



Old and New Classroom Buildings,
Sriyaphai School

Table 99

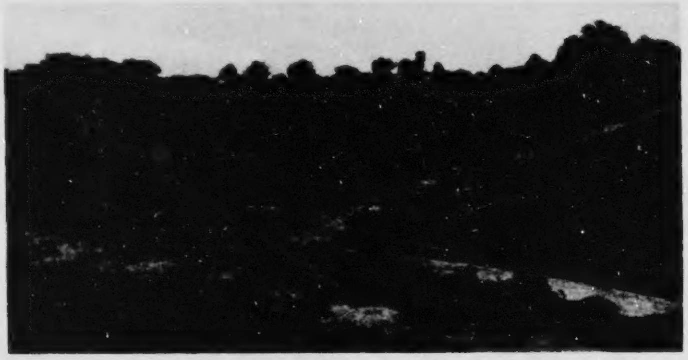
Extent to Which the Objective of Providing Special Programs for Students was Being Achieved in the RSS Schools

(Principal's, Teacher's and Parent's and Alumni Questionnaire Data)

Objective #2	Principals (N = 16)			Teachers (N = 1069)			Parents & Alumni (N = 183)		
	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N
(a) Being emphasized	4.31	0.60	16	3.67	0.86	1056	3.79	0.99	176
(b) Being met	3.56	0.73	16	3.21	0.73	1056			
(c) Matching local needs	3.69	0.48	16	3.41	0.82	1051			
(d) Should be emphasized	4.31	0.70	16	4.19	0.81	1052			

1.3 General Objective #3: To satisfy the economic and social demands of the country in consonance with the Third National Economic and Social Development Plan (1975 - 1979)

Table 100 presents perceptions of the three sample groups of the degree of success achieved by the RSS schools concerning Objective #3. Ratings of all groups fell in a range from slightly-above the mid-point to well-above it.



Cucumber and Corn Field, Singburi School

Table 100

Extent to Which the Objective of Satisfying the Country's Economic and Social Demands Has Been Achieved in the RSS Schools

(Principal's, Teacher's and Parent's and Alumni Questionnaire Data)

Objective #3	Principals (N = 16)			Teachers (N = 1069)			Parents & Alumni (N = 183)		
	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N
(a) Being emphasized	4.19	0.54	16	3.42	0.81	1060	3.36	1.03	174
(b) Being met	3.50	0.73	16	3.01	0.73	1058			
(c) Matching local needs	3.88	0.62	16	3.33	0.84	1057			
(d) Should be emphasized	4.38	0.72	16	4.09	0.82	1059			

In general, the three groups of respondents perceived the three general objectives being achieved in a range from somewhat-above to well-above the mid-point. Closer inspection reveals that:

1. Principals and teachers perceived that the general objectives were being emphasized and should be emphasized at a somewhat greater extent than they were actually being met and matching local needs;
2. Parity of opinion among principals and teachers was shown pertaining to the extent to which the three general objectives should be emphasized; and
3. Principals perceived the achievement of each of the general objectives to be somewhat greater than did the teachers and the parents and alumni, except for the extent to which the general objectives were being successfully met.

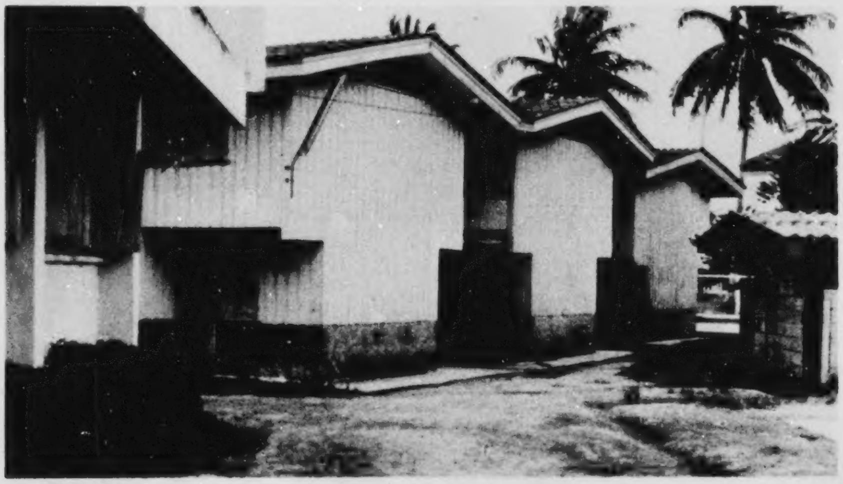
2. EXTENT OF ACHIEVEMENT OF SPECIFIC OBJECTIVES OF THE RSS SCHOOLS

The specific objectives of the RSS schools were as follows:

1. To provide a more flexible and diversified curriculum;
2. To provide needed facilities (e.g. buildings, furniture) for each school;
3. To assign qualified teachers to carry out the learning and teaching activities;
4. To provide equipment, supplies and teaching aids in order to facilitate effective learning; and
5. To provide a supervision and training program for teachers.

2.1 Specific Objective #1: To provide a more flexible and diversified curriculum

Table 101 presents the perceptions of the three sample groups of the degree of success achieved by the RSS schools concerning Specific Objective #1. All ratings fell in the range from somewhat to well-above the mid-point, except teachers' ratings of the extent to which the objective was actually being met in the school. Teachers rated this slightly below the mid-point.



Teachers' Houses, Sriyaphai School

Table 101

Extent to Which the Objective of Providing a Diversified Curriculum was Being Achieved in the RSS Schools

(Principal's, Teacher's and Parent's and Alumni Questionnaire Data)

Objective #1	Principals (N = 16)			Teachers (N = 1069)			Parents & Alumni (N = 183)		
	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N
(a) Being emphasized	4.38	0.62	16	3.32	0.90	1055			
(b) Being met	3.81	0.54	16	2.99	0.76	1056			
(c) Matching local needs	3.88	0.62	16	3.31	0.88	1052	3.54	0.97	174
(d) Should be emphasized	4.31	0.95	16	4.11	0.83	1047			

2.2 Specific Objective #2: To provide needed facilities (e.g., buildings, furniture) for each school

Table 102 presents perceptions of the three sample groups of the degree of success achieved by the RSS schools concerning Specific Objective #2. All groups rated this objective from somewhat-above to well-above the mid-point on the degree of achievement. However, in spite of the high rating given by principals, the standard deviation on this item was also high, indicating some considerable diversity of opinion, as there also was among parents and alumni.

Table 102

Extent to Which the Objective of Providing Needed Facilities was Being Achieved in the RSS Schools

(Principal's, Teacher's and Parent's and Alumni Questionnaire Data)

Objective #2	Principals (N = 16)			Teachers (N = 1069)			Parents & Alumni (N = 183)		
	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N
(a) Being emphased	4.06	0.77	16	3.64	0.96	1055	3.74	1.02	178
(b) Being met	3.63	0.72	16	3.29	0.86	1056			
(c) Matching local needs	4.00	0.82	16	3.51	0.88	1053			
(d) Should be emphasized	4.06	1.12	16	4.23	0.85	1054			

2.3 Specific Objective #3: To assign qualified teachers to carry out the learning and teaching activites

Table 103 presents the perceptions of the three sample groups of the degree of success achieved by the RSS schools concerning Specific Objective #3. All groups rated the extent of the achievement of this objective in the range from considerably-above to well-above the mid-point. A curious finding is the rather high standard deviation among the principals' ratings as to whether this objective should be emphasized.

Table 103

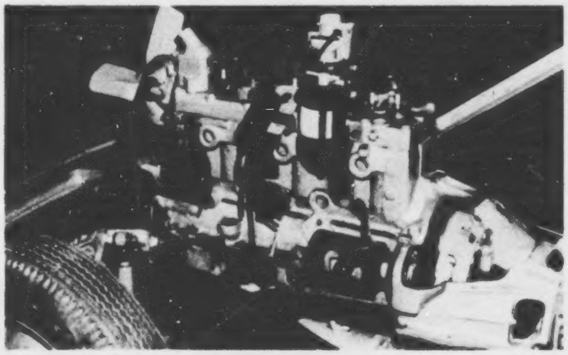
Extent to Which the Objective of Assigning Qualified Teachers to the RSS Schools was Being Achieved

(Principal's, Teacher's and Parent's and Alumni Questionnaire Data)

Objective #3	Principals (N = 16)			Teachers (N = 1069)			Parents & Alumni (N = 183)		
	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N
(a) Being emphasized	4.44	0.63	16	3.92	0.91	1063	3.84	0.98	178
(b) Being met	3.88	0.50	16	3.63	0.83	1061			
(c) Matching local needs	4.06	0.77	16	3.67	0.95	1060			
(d) Should be emphasized	4.25	1.12	16	4.30	0.80	1060			

2.4 Specific Objective #4: To provide equipment, supplies and teaching aids in order to facilitate effective learning

Table 104 presents perceptions of the three sample groups of the degree of success achieved by the RSS schools concerning Specific Objective #4. All groups rated this objective from slightly-above to well-above the mid-point in terms of achievement.



Cut-away Engine, Auto Mechanics,
Phota Wattanaseni School

Table 104

Extent to Which the Objective of Providing Equipment, Supplies And Teaching Aids has Been Achieved in the RSS Schools

(Principal's, Teacher's and Parent's and Alumni Questionnaire Data)

Objective #4	Principals (N = 16)			Teachers (N = 1069)			Parents & Alumni (N = 183)		
	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N
(a) Being emphasized	4.25	0.58	16	3.51	1.00	1062	3.70	1.00	177
(b) Being met	3.62	0.62	16	3.14	0.87	1062			
(c) Matching local needs	3.88	0.72	16	3.47	0.88	1055			
(d) Should be emphasized	4.38	0.81	16	4.27	0.86	1059			

2.5 Specific Objective #5: To provide a supervision and training program for teachers

Table 105 presents the perceptions of the three sample groups of the degree of success achieved by the RSS schools concerning Specific Objective #5. All groups except teachers rated this form somewhat-above to well-above the mid-point in extent of achievement. Teachers rated achievement of this objective slightly-below the mid-point, a finding which is consistent with their lower ratings of in-service training for the new 1978 Curriculum which was reported in Chapter Three. Nevertheless, the generally high rating given achievement of this objective is noteworthy.

Table 105

Extent to Which the Objective of Providing a Supervision and Training Program for Teachers was Achieved in the RSS Schools

(Principal's, Teacher's and Parent's and Alumni Questionnaire Data)

Objective #5	Principals (N = 16)			Teachers (N = 1069)			Parents & Alumni (N = 183)		
	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N
(a) Being emphasized	4.13	0.72	16	3.21	1.02	1062			
(b) Being met	3.75	0.68	16	2.96	0.88	1059			
(c) Matching local needs	4.00	0.82	16	3.37	0.93	1055	3.39	0.94	176
(d) Should be emphasized	4.44	0.73	16	4.15	0.89	1057			

In general, the means and standard deviations of the ratings of the three sample groups indicate that the respondents perceived the achievement of the specific objectives to lie in a range between slightly-above to well-above the mid-point. Close inspection reveals that a similarity exists between principals' ratings in two areas:

1. The specific objectives were being successfully met, but to somewhat less an extent than they were being emphasized or should be emphasized, and
2. The extent to which the specific objectives matched local needs was about equal to the extent to which they were emphasized.

Overall, in considering the extent to which both general and specific objectives were being achieved in the RSS schools, principals, teachers and parents and alumni rated all objectives, with a few exceptions, somewhat to well-above the mid-point of achievement. It can be concluded that the RSS schools are achieving their stated objectives in a very satisfactory manner.

3. CAREER PREPARATION FOR MS 3 GRADUATES

When the principals, teachers and parents and alumni were asked "to what extent the MS 3 graduates were better equipped with career related knowledge, skills and training currently than those MS 3 graduates five years ago", their responses were as summarized in Table 106.

Inspection of the mean scores shows that all three groups of respondents concurred in their opinion and thought that MS 3 graduates in sample schools were considerably better prepared now for careers than MS 3 graduates five years ago. On interview with the eight site sample principals, the positive viewpoint was supported by the statement that the schools were equipped with more shops and equipment and better trained teachers so that vocational courses could be offered in the instructional program which seemed to be popular with parents.

Table 106

Career Preparation for MS 3 Students Compared With
Five Years Ago

(Principal's, Teacher's and Parent's and Alumni
Questionnaire Data)

	Principals (N = 16)	Teachers (N = 1069)	Parents & Alumni (N = 183)
$\bar{X}$	3.88	3.92	3.88
SD	0.62	0.87	0.93
N	16	982	182

4. FUTURE EDUCATION AND CAREER PLANS

4.1 Future Education and Post-High School Plans

Responses of students to the query asking what grade they planned to complete in high school are summarized in Table 107. Most M1 students (83.5%) planned to complete MS 4. A majority (65.2%) of the MS 3 students planned to complete MS 5, but about one-fifth of them (21.5%) planned to complete their schooling at MS 3. The large number of students in M1 stating that they wished to complete MS 4 may have been caused by an error in the wording of the Thai questionnaire giving the impression that MS 4 was a terminating grade under the 6-3-3 reorganization of the school system. MS 5 students' plans are not included in this table because they were already in the highest grade in secondary school and their plan was obvious.

Table 107

Students' Plans for Highest Grade Completion

(M1 and MS 3 Student's Questionnaire Data)

	M1 Students (N = 1425)		MS 3 Students (N = 1429)	
	N	%	N	%
To complete MS 3	245	17.4	307	21.5
To complete MS 4	1163	82.5	138	9.7
To complete MS 5	2	0.1	931	65.2
Some other plan	--	--	1	0.1
No response	15	--	52	3.6
Total	1425	100	1429	100

The student samples were also asked what they planned to do after high school. Their responses are presented in Table 108. The preferences were very similar for all three sample groups. An overwhelming majority (83.4% of M1 students, 87.2% of MS 3, and 91.9% of MS 5) aspired for further education. Only about 15% of M1, 10% of MS 3, and 6% of MS 5 wished to take a job after graduating from secondary school.

Table 108

Students' Post-Secondary Plans

(M1, MS 3 and MS 5 Students Questionnaire Data)

Plan	M1 Students (N = 1425)		MS 3 Students (N = 1429)		MS 5 Students (N = 1137)	
	N	%	N	%	N	%
Take a job	210	14.70	145	10.10	65	5.70
Further education	1188	83.40	1246	87.20	1045	91.90
Other	6	0.50	3	0.20	6	0.60
No response	21	1.50	35	2.40	21	1.80
Total	1425	100	1429	100	1137	100

Those students who planned to take further education were asked to indicate their preference for type of institution for their post-secondary education. Responses are presented in Table 109. Percentages were calculated on the basis of the total student N's. The most popular preference for a post-secondary educational institution was a university, chosen by 38.5% of the M1's, 27% of the MS 3's, and 48% of the MS 5's. The larger proportion of M1 students preferring university over that of the MS 3's is interesting, probably reflecting aspirations which might be dimmed by the time the student reached MS 3. Teachers' college was the preference of over 16% of the M1's, 10% of the MS 3's, and 16% of the MS 5 students. The relatively large proportion of "Other" choices included some specifics normally included under the generic names above, such as "medical." Some specifics were: military cadet, nursing, fisheries, going abroad, pharmaceutical, agriculture, police cadet, business, parachutists, language course, beauty-culture, air hostess, irrigation school, dancing, aeronautics, physical education. Many careers were mentioned under "Other", rather than institutions, probably due to the wording of the item, which referred both to what students wished to do after high school, and to further education.

The naming of a career for which preparation is in a university or technical college, instead "university" or "college" could indicate that students are unclear as to the institution where, for example, medical training is given. Guidance services bear the responsibility for education students concerning career preparation routes.

Table 109

Students' Post-Secondary Institution Preferences

(M1, MS 3 and MS 5 Students Questionnaire Data)

Preferred Institution	M1 Students (N = 1425)		MS 3 Students (N = 1429)		MS 5 Students (N = 1137)	
	N	%	N	%	N	%
Technical College	132	9.30	173	12.10	118	10.40
Vocational School	144	10.10	307	21.50	79	6.90
Teachers' College	235	16.50	141	9.90	182	16.00
University	548	38.50	386	27.00	546	48.00
Other	173	12.10	266	18.60	134	11.80
No response	189	13.30	151	10.60	78	6.90
Total	1425	100	1429	100	1137	100

4.2 Future Career Plans

Table 110 presents the career plans of M1 students. Since this was free response data, coders assembled all careers mentioned into career groups or categories, as will be noted in the table. Among these career groups, M1 students mentioned most frequently the following, which accounted for over 78% of the choices: (a) teacher; (b) nurse, pharmacist, medical doctor; (c) architect, electrician, metallurgist, mechanic, carpenter; (d) soldier, policeman, administration, foreign affairs. Agricultural occupations ranked fifth in the career groups, although they accounted for only 6.8% of the choices. No responses were received from 240 M1 students, or 16.8% of the total.

Table 110

Future Career Plans of M1 Students

(M1 Student's Questionnaire Free Response Data)

Career Group	Category	N	Percentage
Teacher	1	389	27.3
Nurse, Pharmacist, Medical Doctor	2	244	17.2
Architect, Electrician, Metallurgist, Mechanic, Carpenter	7	182	12.8
Soldier, Policeman, Administration, Foreign Affairs	3	112	7.9
Rice farming, Fruit farming, Crop farming, Labour, Animal raising	4	80	5.6
Lawyer, Barrister, Prosecutor, Judge	8	59	4.1
Civil Servant, Businessman, Archeologist, Newspaper Reporter	9	51	3.6
Commerce, Dressmaking, Beautician	5	36	2.5
Government Enterprise, Banking, Accountance, Clerk, Secretary, Airhostess	6	32	2.2
No response		240	16.8
Total		1425	100.0

Responses of MS 3 and MS 5 students concerning their career plans are presented in Table 111. The career of teacher was still stated as the most preferred, actually increasing from 23.9% of MS 3 choices to 33.2% of MS 5 choices. For MS 3, the next most popular career groupings were: (a) architect, electrician, metallurgist, mechanic, carpenter; (b) nurse, pharmacist, medical doctor; (c) civil servant, businessman, archaeologist, newspaper reporter. These career groups accounted for 62% of the choices. An interesting fact is that the career group of civil servant, businessman, etc., had risen from seventh on the list of M1 students to fourth for the MS 3's and third place for the MS 5 students, whereas the grouping architect, electrician, etc., had dropped from second place to fourth place for the MS 5 students. The least popular careers for all three sample groups of students were: (a) commerce, dressmaking, beautician, and (b) government enterprise, banking, accountancy, clerk, secretary, air hostess. No responses were received from 261 (18.3%) of the MS 3 students, and from 174 (15.3%) of the MS 5 students. Apparently a fair proportion of the students in all grades had no career goal in mind, or were not sufficiently sure to respond.

Concerning the establishment of the career group categories, reporting would have been improved if some standardized career category scheme such as that of the Dictionary of Occupational Titles had been used as a basis for categorization.

Responses of M1, MS 3 and MS 5 students to the query concerning who influenced them in their choice of careers are presented in Table 112. Quite clearly, parents had the largest influence. The large proportion of "Other" responses is explained by the fact that large numbers of these responses repeated persons previously named in the item, such as "teacher," "counsellor," and a large number gave variants on the basic terms. Included in variants were: mother, father, grandma, grandpa, grandparents, aunt, uncle, relatives, "everybody." A considerable number reported "self-selected," and "myself."

Table 111

Future Career Plans of MS 3 and MS 5 Students

(MS 3 and MS 5 Student's Questionnaire Free Response Data)

Career Group	MS 3 Students (N = 1429)		MS 5 Students (N = 1137)	
	N	%	N	%
Teacher	341	23.9	377	33.2
Architect, Electrician, Mettalurgist Mechanic, Carpenter	203	14.2	68	6.0
Nurse, Pharmacist, Medical Doctor	201	14.1	178	15.7
Civil Servant, Businessman, Archeologist, Newspaper Reporter	145	10.1	139	12.2
Soldier, Policeman, Administration, Foreign Affairs	99	6.9	39	3.4
Rice farming, Fruit farming, Crop farming, Labour Animal raising	71	5.0	63	5.5
Lawyer, Barrister, Prosecutor, Judge	43	3.0	52	4.6
Government Enterprise, Banking, Accountance, Clerk, Secretary, Airhostess	43	3.0	37	3.3
Commerce, Dressmaking, Beautician	22	1.5	10	0.9
No response	261	18.3	174	15.3
Total	1429	100	1137	100

Numerical findings by categories in this item must therefore be interpreted with caution, but it can be concluded that the family influence is by far the strongest in the tentative choices of a career. In passing, the findings indicate that development of a better type of item to tap this information is needed.

Table 112

Persons Who Influenced Career Choice

(M1, MS 3 and MS 5 Student's Questionnaire Data)

	M1 Students (N = 1425)		MS 3 Students (N = 1429)		MS 5 Students (N = 1137)	
	N	%	N	%	N	%
Parents	771	54.1	461	32.3	258	22.7
Teachers	16	1.1	23	1.6	48	4.2
Brothers or sisters	86	6.0	71	5.0	54	4.7
Guidance Counsellor	49	3.4	47	3.3	12	1.1
Friends	19	1.3	12	0.8	16	1.5
Other	430	30.2	693	48.5	646	56.8
No response	54	3.9	122	8.5	103	9.0
Total	1425	100	1429	100	1137	100

5. EQUALITY OF EDUCATIONAL OPPORTUNITY

Ratings of principals, teachers, students, and parents and alumni are presented in Table 113 concerning the extent to which their school was successful in providing equality of educational opportunity to students of different socio-economic and cultural backgrounds. Principals, students and parents and alumni all rated the provision of equality of educational opportunity in a range from considerably-above to well-above the mid-point.

Table 113

Equality of Educational Opportunity

(Principal's, Teacher's, M1, MS 3 and MS 5 Students and Parent's and Alumni Questionnaire Data)

Principals (N = 16)			Teachers (N = 1069)			M1 Students (N = 1425)			MS 3 Students (N = 1429)			MS 5 Students (N = 1137)			Parents and Alumni (N = 183)		
$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N
4.13	0.72	16	2.99	0.69	990	3.92	0.89	1407	3.68	0.91	1392	3.55	0.95	1117	3.75	0.81	179

Teachers rated the equality of educational opportunity as slightly below the mid-point. Differences between the sample groups were significant beyond the 0.00 level.

Free response comments made by the respondents on interview, concerning equality of educational opportunity have been summarized and will be found in Table 114. The most-frequently mentioned effort to assure equality of opportunity was the attempt made by the schools to raise funds to enable poor students to attend or remain in school. Funds were reported raised from a variety of sources, and were used in a variety of ways to assist poor students. Thirty-five respondents noted that all students are treated in the same way.

Table 114

Equality of Educational Opportunity for Students of Different Socio-economic and Cultural Backgrounds

(Principal's, Teacher's, M1, MS 3, MS 5 Student's and Parent's and Alumni Interview Data)

Comments	Principals	Teachers	Students M1	Students MS 3, 5	Parents and Alumni	Total
The school raises and provides funds for poor students (from school activities, parent and alumni association, business-men, churches, teachers; school co-operative)	5	16	5	8	13	47
All students are treated in the same way	13	3	4	2	13	35

Continued

Table 114 (Continued)

Equality of Educational Opportunity for Students of Different Socio-economic and Cultural Backgrounds

(Interview Data)

Comments	Principals	Teachers	Students		Parents and Alumni	Total
			M1	MS 3, 5		
Forms of financial assistance or subsidy provided to poor students included scholarships; free lunch program; waiver of school fees; paid as library aides, assistants at book sales, assistants to teachers; free room and board at teachers houses; donations of money and clothes from teachers; paid to work in school co-op; hired by teachers to work in their homes	5	11	--	1	--	17
The school deals with economic differences by providing school activities at low or no cost; school fees are reasonable	6	4	2	3	--	15
Differences in economic status cause some problems	--	2	--	--	--	2
No language, religious or cultural differences	--	2	--	--	--	2
The school tries to help poor students but not all poor students are helped	--	1	--	--	1	2

Continued

Table 114 (Continued)

Equality of Educational Opportunity for Students of Different Socio-economic and Cultural Backgrounds

(Interview Data)

Comments	Principals	Teachers	Students M1	Students MS 3, 5	Parents and Alumni	Total
The school has worked successfully to integrate Hill Tribes students	1	1	--	--	--	2
Not the best yet because the school does not accept all students who apply	--	--	--	--	1	1

6. SATISFACTION WITH SCHOOL

Responses of principals, teachers, M1, MS 3, and MS 5 students concerning the degree of satisfaction with their school are presented in Table 115. Ratings ranged from very much above the mid-point (principals) to considerably-above the mid-point (MS 5 students). Standard deviations showed considerable variance in the MS 5 responses, and also the teachers responses, but the generally high ratings are strong evidence that those who work in the immediate school environment are very happy in it, especially the principals.

7. SCHOOL RATING

All six sample groups were asked in the questionnaires, to "Rate the overall operation of your school, i.e., how well is your school running?" Responses to this query are presented in Table 116. Responses ranged from a high of considerably-above the mid-point (M1 students, principals, MS 3 students, parents and alumni) to a low of somewhat-above the mid-point

Table 115

Satisfaction with RSS School

(Principal's, Teacher's, M1, MS 3 and MS 5 Student's Questionnaire Data)

Principals (N = 16)			Teachers (N = 1069)			M1 Students (N = 1425)			MS 3 Students (N = 1429)			MS 5 Students (N = 1137)		
$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N
4.50	0.52	16	3.73	0.94	998	4.35	0.77	1395	3.68	0.98	1405	3.65	1.00	1119

(MS 5 students and teachers). Differences between groups were significant beyond the 0.00 level, a somewhat meaningless statistic in view of the relative uniformity of the ratings and the modest range of standard deviations.

Interview ratings and comments added some useful information. Teachers, when interviewed, sometimes asked if the rating were being made in comparison with other provincial schools or schools in Bangkok. When given the opportunity to make both comparisons, six teachers rated their school in comparison with other schools in the province one rating point higher than in comparison with Bangkok secondary schools. Some teachers compared only within their province. Other comments centred on "good student achievement," and, "good equipment, buildings, and/or site."

Principals, on interview, commented as follows: (a) my school is better than others, but not the best, (b) this school is average compared with other RSS/DSS schools, (c) children from other districts wish to attend this school, and (d) this school is a good example for other schools.

Students, on interview, commented as follows: (a) the school is well equipped, (b) good discipline, and (c) students are encouraged to go on for further studies.

Parents, on interview, commented as follows: (a) this is the best school in the province, (b) the other schools in the province seek to imitate this school, (c) the schools in this province can be as good as any in Bangkok, and (d) the achievement of students is high and a good percentage go on for further education.

It can be concluded that among all groups concerned with the school, questionnaire and interview ratings are consistently high in giving the schools a good rating. Even teachers, the low raters throughout this study, rate their school considerably-above the mid-point.

Table 116

School Rating

(Principal's, Teacher's, M1, MS 3 and MS 5 Students,
and Parent's and Alumni Questionnaire Ratings)

Principals (N = 16)			Teachers (N = 1069)			M1 Students (N = 1425)			MS 3 Students (N = 1429)			MS 5 Students (N = 1137)			Parents and Alumni (N = 183)		
$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N
3.81	0.75	16	3.32	0.66	960	3.90	0.65	1413	3.55	0.73	1412	3.48	0.72	1130	3.53	0.55	182

8. COMPARISON WITH LOCAL SCHOOLS AND SCHOOLS IN BANGKOK

All sample groups were asked to respond to two comparison questions. Responses are presented in Table 117. The first question read: "How does your school compare with other non-project government secondary schools in your local community? (Check one only)." The second question asked: "How does your school compare with the average government secondary school in Bangkok? (Check one only)." Response choices ranged from "My school is much/somewhat better, about the same, much/somewhat worse, I don't know."

When comparing their RSS school with other non-project government secondary schools in the community, principals, students and parents and alumni rated their school as very much above or well-above the mid-point. Teachers rated their school considerably above the mid-point in relation to the comparison schools. When comparing their RSS school with the average government secondary school in Bangkok, principals were the only sample group to rate their school above the mid-point in this case, considerably above. Teachers, MS 3 and MS 5 students, and parents and alumni rated their school considerably-below the mid-point in comparing it with Bangkok schools. This finding provides evidence of the existence of the stereotype that Bangkok schools are better, whether or not such is actually the case.

A certain overlap occurred between this item and the preceding item on "School Rating,", but both items are reported independently because the intent of the items differed. "School Rating" was intended to tap an independent opinion of the school as a school, not on a comparative basis, but this did not always happen. In sum, from both the school rating and the comparison items, all sample groups but the principals perceived their school as better than others in the province, but not as good as the ones in Bangkok.

Table 117

Comparison of RSS Schools with Other Provincial Non-Project Government Secondary Schools and With Average Bangkok Government Secondary Schools

(Principal's, Teachers, M1, MS 3, 5 Student's and Parent's and Alumni Questionnaire Data)

Comparison Schools	Principals		Teachers		Students M1		Students MS 3, 5		Parents & Alumni	
	$\bar{X}$	N	$\bar{X}$	N	$\bar{X}$	N	$\bar{X}$	N	$\bar{X}$	N
Comparison with local non-Project Government secondary schools	4.81	16	3.85	981	4.47	1163	4.21	2338	4.10	183
Comparison with the average Bangkok Government secondary school	3.50	16	2.02	977	2.76	823	2.16	2012	2.38	149

9. SUCCESS IN PROMOTING NATIONAL UNITY

Opinions of principals, teachers, students, and parents and alumni concerning the success of the school in promoting national unity and common identity are presented in Table 118. Principals rated the success of their school in this area as well-above the mid-point. M1 students, parents and alumni, MS 5 and MS 3 students rated it considerably-above the mid-point, and teachers, somewhat-above the mid-point. Clearly, all sectors of the school enterprise saw the schools as doing a good piece of work in promoting national unity and common identity.

Table 118

Success in Promoting National Unity and Common Identity

(Principal's, Teacher's, Students' and Parents and Alumni Questionnaire Data)

Principals (N = 16)			Teachers (N = 1069)			M1 Students (N = 1425)			MS 3 Students (N = 1429)			MS 5 Students (N = 1137)			Parents and Alumni (N = 183)		
$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N
4.00	0.63	16	3.42	0.82	996	3.96	0.87	1407	3.58	0.87	1401	3.62	0.86	1122	3.74	0.81	182

10. TEN BEST FEATURES OF THE RSS SCHOOLS

Teachers, students, and parents and alumni were asked in a free-response mode on their questionnaires to: "State the two best features of your school." A summary of the responses indicating the ten best features is presented in Table 119, arranged by frequency of mention and sample groups. Eighteen features in all appeared on one sample or another as a "best feature."

Five features (teaching-learning activities; discipline; classroom buildings; in-school sports; and teaching aids) were mentioned by all five sample groups. Four groups mentioned three more features (location; school site and playground; and activities), but M1 students did not mention school site or activities, nor did parents and alumni mention location.

Three further features (school popularity, workshops and library) were mentioned by two groups only, but MS 3 and MS 5 students did not mention workshops, nor teachers and MS 5 the library. School popularity was mentioned only by MS 3 and MS 5 students as a best feature.

Seven features were mentioned by one group or another, but not sufficiently often to place these features among the first ten.

The high frequency of mention of features associated with the teaching-learning situation gave considerable further support to the belief that students and teachers in the RSS schools are well-motivated towards learning.

11. TEN WORST FEATURES OF THE RSS SCHOOLS

Teachers, students and parents and alumni were asked in a free-response mode on their questionnaires to: "State the two worst features of your school." A summary of the responses indicating the ten worst features is presented in Table 120, arranged by frequency of mention and sample groups. Eighteen features in all appeared again in one sample or another as a "worst feature of the school."

Table 119

Ten Best Features of the RSS Schools

(Teacher's, M1, MS 3, MS 5 Student's, Parent's and Alumni Questionnaire Data)

School Features	All Groups	Teachers (N = 1069)		M1 Students (N = 1425)		MS 3 Students (N = 1429)		MS 5 Students (N = 1137)		Parents and Alumni (N = 183)	
	f	f	%	f	%	f	%	f	%	f	%
Mentioned by All Five Groups											
Teaching-learning activities	1098	107	8.96	424	16.22	314	12.46	227	11.24	26	9.96
Discipline	1090	86	7.20	361	13.81	303	12.02	310	15.35	30	11.49
Classroom buildings	939	189	15.83	254	9.72	259	10.28	198	9.81	39	14.94
In-school sports	512	49	4.10	123	4.71	188	7.46	139	6.88	13	4.98
Teaching Aids	387	46	3.85	151	5.78	106	4.21	69	3.42	15	5.75
Mentioned by Four Groups											
Location	323	69	5.78	100	3.83	94	3.73	60	2.97	--	--
School site, playground	291	90	7.54	--	--	98	3.89	82	4.06	21	8.05
Activities	199	43	3.60	--	--	76	3.02	67	3.32	13	4.98
Mentioned by Two Groups											
School popularity	250	--	--	--	--	160	6.35	90	4.46	--	--
Library	191	--	--	107	4.09	84	3.33	--	--	--	--
Workshops	135	44	3.69	91	3.48	--	--	--	--	--	--
Mentioned by One Group											
Personnel Administration	111	--	--	111	4.25	--	--	--	--	--	--
Students' behavior	73	--	--	--	--	--	--	73	3.62	--	--
Programs of learning	11	--	--	--	--	--	--	--	--	11	4.21
Administrative aspect	10	--	--	--	--	--	--	--	--	10	3.83
Teacher's efficiency	97	--	--	97	3.71	--	--	--	--	--	--
Teacher-student relationships	7	--	--	--	--	--	--	--	--	7	2.68
Cleanliness	42	42	3.52	--	--	--	--	--	--	--	--
Sub-total	5766	765	64.07	1819	69.59	1682	66.75	1315	65.13	185	70.88
Other responses	2842	429	35.93	795	30.41	838	33.25	704	34.87	76	29.12
TOTAL RESPONSES	8608	1194	100.00	2614	100.00	2520	100.00	2019	100.00	261	100.00
No response	1878	944	44.15	236	8.28	338	11.83	255	11.21	105	28.69
TOTAL POSSIBLE RESPONSES	10486	2138	100.00	2850	100.00	2858	100.00	2274	100.00	366	100.00

Four features (washrooms; discipline; school site and playground; and cafeteria) were mentioned by the four groups as among the worst features.

Three features (classroom buildings; cleanliness; and students' behavior) were mentioned by one or more of three groups. Teachers did not comment on students' behavior, nor parents and alumni upon classroom buildings or cleanliness as worst features.

Three further features (sense of unity; uniform; and classrooms) were mentioned by two groups. Teachers and parents and alumni did not mention classrooms or uniforms; students did not mention sense of unity.

One or another group mentioned eight individual features. Teachers listed administration, teachers' housing and staff welfare among their perceptions of worst features. Students mentioned a "garage" or bicycle shed. Parents and alumni mentioned school fence, gate and road; teacher-student relationships; communication, and teachers' behavior. Teacher's behavior may have been mentioned because of the high cultural expectations of teachers held by the parents and alumni.

Clearly, perceptions of the worst features of the schools varied markedly among the groups sampled. Eighteen features were named, but only four of these were a common concern of the four groups. Interesting is the fact that the highest frequency of mention as a worst feature for the teachers was "administration." However, this did not appear in any of the other three groups' listings. Parents' concern over the state of school gate, fence and road was not shared by any other group. Parents and alumni ranked students' behavior as the worst feature of the school, but teachers did not mention it sufficiently often for it to be included in the first ten. All students were also very concerned about students' behaviour.

In summary, it can be concluded that there existed serious concerns about many features of the school, with respondents obviously varying considerably in their display of what they valued about the school and its milieu. Some of the concerns can be alleviated by recalling that three features (classroom buildings, discipline, and

Table 120

Ten Worst Features of the RSS Schools

(Teacher's, M1, MS 3, MS 5 Student's, and Parent's and Alumni Free Response Questionnaire Data)

School Features	All Groups	Teachers (N = 1069)		M1 Students (N = 1425)		MS 3, 5 Students (N = 2566)		Parents and Alumni (N = 183)	
	f	f	%	f	%	f	%	f	%
Mentioned by All Groups									
Washrooms	1104	78	7.77	410	21.17	604	14.89	12	6.56
Discipline	547	77	7.67	122	6.30	340	8.38	8	4.37
School site, playground	398	51	5.08	99	5.11	236	5.82	12	6.56
Cafeteria	596	41	4.08	134	6.92	410	10.11	11	6.01
Mentioned by Three Groups									
Classroom buildings	200	37	3.69	54	2.79	109	2.69	--	--
Cleanliness	260	33	3.29	84	4.34	143	3.53	--	--
Students' behavior	738	--	--	390	10.13	328	8.09	20	10.93
Mentioned by Two Groups									
Sense of unity	68	61	6.08	--	--	--	--	7	3.83
Uniform	125	--	--	62	3.20	63	1.55	--	--
Classrooms	108	--	--	54	2.79	54	1.33	--	--
Mentioned by One Group									
Administration	104	104	10.36	--	--	--	--	--	--
Teachers' housing	30	30	2.99	--	--	--	--	--	--
Staff welfare	30	30	2.99	--	--	--	--	--	--
Garage (Bicycle shed)	102	--	--	55	2.84	47	1.16	--	--
School fence, gate, road	15	--	--	--	--	--	--	15	8.20
Teacher-student relationships	7	--	--	--	--	--	--	7	3.83
Communication	7	--	--	--	--	--	--	7	3.83
Teachers' behavior	6	--	--	--	--	--	--	6	3.28
Sub-total	4445	542	53.98	1464	75.58	2334	57.54	105	57.38
Other responses	2735	462	46.02	473	24.42	1722	42.46	78	42.62
TOTAL RESPONSES	7180	1004	100.00	1937	100.00	4056	100.00	183	100.00
No responses	3306	1134	53.04	913	32.04	1076	20.97	183	50.00
TOTAL POSSIBLE RESPONSES	10486	2138	100.00	2850	100.00	5132	100.00	366	100.00

school site) appear in the summary of both the ten best and ten worst features of the schools. Such findings indicate that combining data from sixteen schools on queries such as this may yield less useful information than a school-by-school study. Nevertheless, the commonalities that emerged in the perceptions of the ten worst features of the school indicated a need for attention to some aspects of the RSS school operation and context.

12. NEEDED SCHOOL CHANGES

Teachers, students and parents and alumni were asked: "What changes or improvements, major or minor, would you like to have made in connection with your school? List as many changes as you wish." Table 121 presents a rank-ordered summary of the open-ended responses. This question obviously is closely related to the previous one concerning the worst features of the school, and many overlaps occur. All four sample groups mentioned classroom buildings and cafeteria as needed school changes. The cafeteria especially, was mentioned 921 times in all, with students being particularly concerned about this feature of the schools.

Five features (teaching-learning situation; teaching aids; gymnasium; school site and playground; and discipline) were mentioned as needing improvement by three of the four sample groups, although not always the same groups. For example, discipline was not mentioned by the teachers, but by all other groups. A gymnasium was mentioned frequently by students, a few times by teachers, and not at all by parents. Teaching-learning activities were a major concern of the MS 3 and MS 5 students, mentioned 340 times, and teaching aids, 348 times. Students and parents and alumni were concerned about school site and playground, but not teachers.

Improvements in the washrooms for the schools were mentioned by students. M1 students gave it first priority (f = 358) and MS 3, 5 third priority (f = 405) for a total frequency of mention of 763.

Although only the teacher's sample mentioned the administrator as a needed school change, it appeared 137 times, an indicator of

Table 121

Rank-Ordering of Perceptions of Needed School Changes

(Teacher's, M1, MS 3, MS 5 Student's, Parent's and Alumni Questionnaire Free Response Data)

Rank	Teachers (N = 1069)	f	Rank	Parents and Alumni (N = 183)	f
1	Administrator	137	1	School fence, gate	14
2	Teaching/learning situation	48	2	Cafeteria	11
3	Staff welfare, teachers efficiency	35	3	Discipline	9
4	Teachers' houses, classroom buildings	32	4	School site, playground	8
5	Cafeteria	31	5	Teaching aids	7
6	Teaching aids	29	5	Teachers' efficiency	7
7	Service: Out-posting discipline/gymansium	24	6	Classroom buildings	6
8	Sense of unity	21	6	Parent-Teacher Association	6
9	Guidance; auditorium	20	6	Teachers' behavior	6
10	Activities	18	7	Sense of unity	5
		395	8	Guidance; scholarships	4
			8	Teacher-student relationship	4
			9	School hours	3
			10	Other (f = 2 or less)	93
					183
Rank	**M1 Students (N = 1425)**	**f**	**Rank**	**MS 3, 5 Students (N = 2,560)**	
1	Washrooms	358	1	Cafeteria	607
2	Cafeteria	272	2	Discipline	537
3	Classroom buildings	178	3	Washrooms	405
4	School site, playground	175	4	Teaching aids	348
5	Gymnasium	124	5	Teaching/learning activities	340
6	Discipline	119	6	Gymnasium	287
7	Classrooms	101	7	School site, playground	251
8	Students' behavior	85	8	Recreation area	218
9	Teaching/learning activities	81	9	Classroom buildings	217
10	Service: Out-posting	81	10	Athletic field	170
		1,574			3,380

considerable dissatisfaction in some schools. It was first priority on the teachers' list of needed school changes, although it represented only about 13% of the teachers' sample.

Interesting response patterns appeared among the different groups, showing quite a range of responses per group.

Group	N	Total Responses	Response Ratio
Teachers	1069	395	0.37 per teacher
M1 Students	1425	1,574	1.1 per student
MS 3, 5 Students	2560	3,380	1.3 per student
Parents and Alumni	183	183	1.0 per parent and alumni

The above data, when taken with the opinions of the schools' ten best features and ten worst features, give a clear indication of considerable agreement on needed school changes, together with conflicting data on some features of the schools. This conflict underlines the need for a school-by-school study of the data to assist in improving educational services in the RSS schools.

Cafeteria, Sriyaphai School

13. STUDENT ACHIEVEMENT

Data were obtained from the Office of Special Projects concerning the achievement of students on Entrance Examinations at the M1, MS 1 and MS 4 levels, from 1974 to 1979 in the 16 sample RSS schools in this study. Results are presented in Table 122. M1 started only in 1978, but for the 1978 and 1979 school years, admitted 11,789, or 70.74% of the applicants. In MS 1 from 1974 to 1978, 32,287, or 73.83% of the applicants were admitted. In MS 4 from 1974 to 1979 inclusive, 15,683, or 62.68% of the applicants were admitted.

The data show clearly that the RSS schools were quite selective in their admission policies, caused largely by the demand for places far exceeding the supply of places available.

Concerning achievement of students in final examinations, the Office of Special Projects provided data concerning the achievement of students at various levels from MS 1 to MS 5, 1974 - 1978. (MS 5 data were available only for 1974 and 1975). These data are summarized in Table 123.

In MS 1, 2, and 3, a very high percentage of the students passed the examinations -- 93.18% to 98.24%. This is probably a natural corollary of the selection process of the entrance examinations. In MS 4 in 1974, the only year for which data are available for that grade, 64.53% passed the final examination. In MS 5 in 1974, 78.92% passed, and in 1975, 83.53%. These data from MS 4 and MS 5 indicate that considerable attrition occurs at these grade levels, possibly due to necessity as a result of a shortage of places in the next higher level of formal education.

Data at the national level for M1, MS 1, MS 3 and MS 5 for the school years 1977 and 1978 were supplied by the Office of Special Projects from data compiled by the National Statistical Office, Office of the Prime Minister. A summary of the results is presented in Table 124.

Table 122

Results of M1, MS 1 and MS 4 Entrance Examinations in 16 RSS Schools, 1974 - 1979

(Office of Special Projects Data)

Year	M1			MS 1			MS 4		
	Number of Applicants	Number Admitted	Percentage Admitted	Number of Applicants	Number Admitted	Percentage Admitted	Number of Applicants	Number Admitted	Percentage Admitted
1974	--	--	--	8,009	5,165	64.49	2,041	1,058	51.84
1975	--	--	--	9,676	6,987	72.21	3,285	1,902	57.90
1976	--	--	--	8,896	7,499	84.30	4,033	2,542	63.03
1977	--	--	--	8,400	6,817	81.15	4,547	2,858	62.85
1978	8,621	5,812	67.42	8,749	5,819	66.51	5,232	3,289	62.86
1979	8,044	5,977	74.30	--	--	--	5,882	4,034	68.58
Total	16,665	11,789	70.74	43,730	32,287	73.83	25,020	15,683	62.68

Table 123

Results of Final Examinations, Lower Secondary Level and MS 5 (in 1974, 1975) in 16 RSS Project Schools, 1974 - 1978

(Office of Special Projects Data)

Academic Year	Number of Examinees	Number of Passes	Percentage of Passes
1974			
MS 1	5,593	5,333	95.37
MS 2	4,650	4,333	93.18
MS 3	3,851	3,674	95.40
MS 4	1,077	695	64.53
MS 5	593	468	78.92
1975			
MS 1	7,146	6,902	96.59
MS 2	6,087	5,756	94.56
MS 3	4,826	4,727	97.95
MS 5	1,002	837	83.53
1976			
MS 1	7,081	6,861	96.89
MS 2	6,715	6,453	96.10
MS 3	5,605	5,458	97.38
1977			
MS 1	6,661	6,525	97.96
MS 2	7,082	6,857	96.82
MS 3	6,527	6,412	98.24
1978			
MS 1	5,698	5,583	97.98
MS 2	6,563	6,379	97.20
MS 3	6,795	6,604	97.19

Table 124

Achievement of Students in Government Secondary Schools

(Nation-wide Data from the National Statistical Office, Office of the Prime Minister)

	M1			MS 1			MS 3			MS 5		
	Enrolled	Promoted	Percentage Promoted	Enrolled	Promoted	Percentage Promoted	Enrolled	Graduated	Percentage Graduated	Enrolled	Graduated	Percentage Graduated
1977	N/A	N/A	N/A	245,706	225,209	91.66%	179,962	168,463	91.66%	50,650	49,276	97.29%
1978	258,676	235,395	91.00%	260,031	236,628	91.00%	220,635	206,537	91.66%	73,997	71,989	97.29%

The percentage of passes in these data was very high and very uniform (91.00, 91.00 and 91.66%) for M1, MS 1 and MS 3, indicating the possibility that the process of scaling the marks on the normal curve had been used. In MS 5, the percentage of passes was 97.19%. It seems apparent that criteria for arriving at the data cited from the RSS schools and from the National Statistical Office need examination and discussion before useful comparisons can be made.

14. ESTIMATED COST PER STUDENT IN RSS SCHOOLS

Arriving at a firm cost per student per year in any school system is very difficult when both capital and recurrent (operating) costs are taken into account, because capital costs represent buildings and equipment which will be used by many cohorts, even generations, of students. In some jurisdictions such as the province of Alberta, where the Thai participants in the training project studied, common practice is to spread the capital costs over a period of 25 years. Capital costs are almost always incurred through arranging loans repayable in equal instalments over 25 years. These instalments represent a blend of principal and interest, amortized over the 25 years. In calculating the cost per student, then, the capital repayment costs for one year are added to the operating costs for the same year, and divided by the number of students in attendance during that year. The formula becomes:

$$C = \frac{L + R}{N}$$

where C = cost per student per year

L = cost of annual payment of loan

R = recurrent cost for the year

N = number of students in attendance in the year

Using this method of computing per student costs, and the data summarized in Section 2.3 of Chapter Five, the cost per student in the RSS schools in the school year 1978 was:

$$\frac{\text{฿}\ 14,615,917\ +\ 126,540,000}{58,875} = \underline{\text{฿}\ 2398}$$

It must be emphasized that this is an estimate only, based on one method of computation and on the data available to the researchers. Dividing the total capital costs by 25, as was done here, without taking loan interest into account, is not true amortization, but does represent a division of the costs themselves over a period of 25 years. If blended principal and interest payments were calculated, the per student costs would be somewhat higher. Complete and consistent data were not available for computing recurrent costs for years other than 1978.

15. STUDENT FOLLOW-UP

Principals were asked in their questionnaire to "Estimate the number of graduating students from your school who went to Technical College, Vocational School, Teacher's College, University, took employment, or were unemployed, for the five years indicated." The years were 1974 to 1978. Space was given for two "Other (specify)" columns. Estimates of the principals concerning MS 3 graduates in the years noted are presented in Table 125. N's indicate only the number of graduates who submitted reports to the schools, which may not represent the actual total number of graduates in each year. Caution should thus be exercised in interpreting or extrapolating from this table and from the table for MS 5 graduates which follows.

In Table 125 the percentages of MS 3 graduates pursuing further education at the Upper Secondary level and in teachers' colleges were nearly the same in 1974. After 1974, however, there was a sharp increase of percentages for the Upper Secondary level whereas for the teachers' colleges the percentages sharply decreased. Percentages of MS 3 graduates who went to vocational schools and technical colleges fluctuated somewhat over the years. Percentages of MS 3 graduates who continued their study in universities should be interpreted with caution for two reasons: (1) universities require MS 5 graduation as a minimum for application, and (2) students reporting these data could have mistaken certain levels or types of institutions as "university," especially during the period around 1975 - 1976, when the country was experiencing reform in political and educational structures. The sudden drop-off in MS 3 students estimated to be attending university in 1978 was due to the fact that MS 3 graduates are not eligible for university entrance. The percentage of MS 3 graduates who were employed was quite stable from 1974 to 1978, accounting for less than 10% of the graduates. Similarly, the percentages of students reported as unemployed was stable at a level below 5% of the graduates, with the exception of 1975. Under "Other (specify)" were found specifics of employment under occupational titles, such as "nursing;" "soldiers;" "business;" "marriage;" "death;" "unreported."

Using trend analysis, some patterns in a global mode appeared in the rank-ordering and expected percentages in the different categories (based on available trend data), expected percentages, and trends. These were:

	Rank-order	Expected Percentage .	Trend
Upper Secondary	1	44	Increase
Vocational College	2	18	Slight increase
Technical College	3	16	Slight increase
Employment	4	7	Stable
Teacher's College	5	1	Drastic decrease
Total		86	

In Table 126 will be found the estimates of the principals of the post-school activities of MS 5 graduates from the 16 sample schools in the years 1974 to 1978. As might be expected for the graduating classes of the last year in Upper Secondary school, a substantial proportion (one-quarter to one-third) of the graduates proceeded to university. A stable

Table 125

Estimates by Principals of Post-school Activities of MS 3 Graduates of the 16 Sample Schools, 1974 - 1978

(Principal's Questionnaire Data)

Graduates of	N	Upper Secondary	Vocational School	Technical College	Teacher's College	University	Employed	Unemployed	Other	Total
1974	2494	24.39%	13.27%	13.87%	26.18%	0.92%	7.54%	3.45%	10.38%	100%
1975	3014	30.13	12.64	9.19	15.30	4.84	7.60	7.23	13.07	100%
1976	3839	30.91	12.66	9.30	11.75	18.55	5.99	3.70	7.14	100%
1977	4026	37.91	18.33	12.72	5.86	3.33	9.86	3.35	8.64	100%
1978	3927	39.86	16.12	16.83	2.65	0.10[1]	6.70	4.07	13.67	100%

---

[1] MS 3 graduates not eligible for entrance to university.

group of about 16% entered Teacher's College. A sharp decrease occurred after 1974 in those attending Vocational Schools, the percentage dropping from slightly over 20% to below 10%, due to changes in regulations. Technical College enrolments fluctuated slightly from year to year, but remained below 10% of the MS 5 graduates. The proportion seemed to be rising in 1977 and 1978. The percentage of employed graduates fluctuated considerably, from around 8% to 14%. Unemployed graduates were estimated to be in the 6% to 10% range. The "Other (specify)" percentages varied quite sharply from a low of around 11% in 1974 to a high of 33% in 1977. The low percentage in 1974 may have been due to the higher percentage enrolled in Vocational Schools in that year.

In terms of trend analysis from the available data, the trend appeared to be a slight decrease in university enrolments; a slight decrease in enrolments in vocational schools; and a very slight decrease in those attending teacher's colleges. The trend in enrolments in technical colleges appeared to be that of a slight increase. The percentages of both employed and unemployed fluctuated over the years but did not indicate an upward trend. The range of percentages in the "Other (specify)" category was so great that the data did not lend themselves to trend analysis. A summary of the trends for MS 5 graduates, then, is:

	Rank-order	Expected Percentages	Trend
University	1	23	Decrease
Teacher's College	2	15	Very slight decrease
Employment	3	11	Fluctuation
Technical college	4	8	Slight increase
Vocational schools	5	6	Slight decrease
Total		63	

Table 126

Estimates by Principals of Post-School Activities of MS 5 Graduates of the 16 RSS Sample Schools, 1974 - 1979

(Principal's Questionnaire Data)

Year	N	University	Teacher's College	Vocational School	Technical College	Employed	Unemployed	Other	Total
1974	529	31.39%	17.01%	20.04%	5.10%	8.13%	7.18%	11.15%	100%
1975	700	27.14	16.29	9.57	4.86	10.00	7.00	25.14	100%
1976	1155	28.75	16.19	9.35	3.72	13.85	10.48	17.66	100%
1977	1874	24.60	16.36	6.40	5.02	8.70	5.92	33.00	100%
1978	1950	25.13	15.38	7.59	8.72	10.36	9.03	23.79	100%

Keeping in mind the caution expressed earlier about extrapolating from these data on estimates of students' post-school activities, it seems clear from both MS 3 and MS 5 data that students after graduation from either grade were continuing their education in various institutions rather than going directly into employment. This was particularly noticeable with MS 3 graduates. The situation was not only a vote of confidence in education and in the RSS schools, but also a problem for those Ministries in the government who were responsible for providing places in schools and post-secondary institutions in Thailand.

16. THE UNIVERSITY OF ALBERTA TRAINING PROGRAM

One provision of the Development Credit Agreement was for the provision of Technical Assistance in the form of fellowships for principals and some senior staff of the RSS Project schools to obtain graduate studies concerning the administration of schools with a diversified curriculum. The Faculty of Education of The University of Alberta, in Edmonton, Canada, was asked to emplement this training program, which it did between September, 1975 and May, 1979. During that time, 64 principals, assistant principals, or academic department heads followed a four-month, short-term intensive training program in the philosophy and administration of comprehensive high schools. All participants earned the Certificate of the Faculty of Education, and returned to their schools to pursue their duties in the positions from which they had been granted leave.

The Director of the Alberta training program was Dr. L.R. Gue, a Professor of Educational Administration in the Department of Educational Administration of The University of Alberta. The Department of Educational Administration (a teaching Department offering Master's and Doctoral degrees in Educational Administration) had also implemented Thailand Project I, 1966 - 1972, for Thailand and Canadian International Development Agency (CIDA). Project I has become known as the "CIDA Project," and the 20 schools assisted by CIDA the "CIDA schools." Professor Gue was Training Director of the CIDA Project, and designed the Training Program for it.

Training for the RSS school administrators at The University of Alberta was designated "Thailand Project II" at the University. As with the CIDA Project, Thailand Project II contained a blend of theory and practice. The theory sector touched upon the philosophy, administration, and practice in comprehensive schools, together with selected theory in administration in general. Observation and study of actual practice in the administration of comprehensive high schools was arranged through attachments to such schools, chiefly in the Edmonton area. Mr. William McCarthy, a colleague of Professor Gue in the Department of Educational Administration, arranged, monitored and evaluated the school attachments (practicum) for the Thai participants. In both theory and practicum, participants followed usual university practice of writing term papers, final examinations, and reports on field experiences. Participants were asked to evaluate their training program by means of exit interviews conducted by Professors Gue and McCarthy shortly before participants returned to Thailand. From the results of these interviews, constant improvements were made as each of the four groups completed their programs.

Some problems presented themselves with the training program for Group 1, which studied at Alberta from September, 1975 to January, 1976. One of the Edmonton school systems declined to provide practicum experiences for the Thai participants in Group 1, and alternative attachments had to be found in the Edmonton area. This Professor McCarthy arranged on very short notice. Off-campus housing with Canadian families was tried with Group 1, but proved largely unsuccessful due to distances between homes, travel time in cold weather, and the relative impersonality of some of the placements. The five-month training period proved inappropriate due to the long Christmas break in Alberta schools followed by only three weeks of school operation before the end of the first semester.

For Groups 2, 3, and 4, then, practicum placements were negotiated with all appropriate school systems, participants lived in university housing in modern high-rise dormitories, and the training program was shortened to four months of concentrated study. English Language study was introduced for two evenings per week, which helped many participants greatly. Social events, in Edmonton homes, which had been instituted by Dean Emeritus Herbert Coutts in the CIDA Project, were continued and systematized, helping greatly to offset homesickness. Groups 2, 3 and 4 had no particular problems.

All 64 participants in Thailand Project II at The University of Alberta completed successfully their training program, and were awarded the Certificate of the Faculty of Education in the Philosophy and Administration of Comprehensive High Schools. Illness was minimal among the participants, and none returned early to Thailand. Names and positions of the participants will be found in Appendix M.

It can be concluded that the Technical Assistance portion of the RSS Project in the form of the Alberta Training Program was implemented successfully and according to a revised schedule commencing in 1975.

17. SUMMARY COMMENTS

This chapter has attempted to tap opinions concerning major outcomes of the implementation of the RSS Project. Sixteen areas were investigated, using ratings, free responses on questionnaires, and interviews.

Concerning the extent to which the general and specific objectives were (a) being emphasized, (b) being met, (c) matching local needs, and (d) should be emphasized, all groups, with one or two exceptions gave positive ratings to the success of the RSS schools in the field of objectives.

All sample groups thought the RSS schools were preparing students better for careers than they were five years ago. A large proportion of the students in the sample of M1, MS 3 and MS 5 students preferred to continue their education either to the highest grade of secondary school or at a post-secondary institution rather than take employment. Universities and teachers' colleges were the most preferred institutions. Tentative career choices fell into a mix of professional and technical occupations, with the balance swinging towards the professional in MS 5. No responses were received from just under twenty-percent of the students. Parents and family overwhelmingly had the most influence on career choices, although a considerable number of students stated that they chose their future occupations themselves.

Concerning provision of equal educational opportunity for students of different socio-economic and cultural backgrounds, all except teachers thought the schools did this well.

Both in school rating and satisfaction with their school, all sample groups rated the schools highly, including the teachers, whose general ratings throughout the study were the lowest of the sample groups. In comparing their schools with local government and Bangkok government secondary schools, all rated their school better than other local schools, but lower than average Bangkok government secondary schools, except for principals. Principals rated their RSS school as being better than Bangkok schools.

All respondents thought the RSS schools were doing a good piece of work in promoting national unity and a sense of identity.

In listing the best and worst features of the schools, three features (classroom buildings; discipline, and school site and playground) appeared in various schools as both best and worst features. Eighteen "best" and eighteen "worst" features were named in open-ended responses. Concerning the "best" features, all sample groups agreed upon these: teaching-learning activities; discipline; classroom buildings; in-school sports; teaching aids. Among the "worst" features, all sample groups agreed upon: washrooms; discipline; school site and playground; cafeteria. The item concerning needed school changes overlapped with the "worst features" item. The most frequently-mentioned needed changes were: cafeterias; teaching-learning activities; teaching aids; gymnasia; school site and playground; discipline. Students were most concerned about washrooms (f = 783). "Administrator" as a needed change was mentioned 137 times by teachers, but by no other sample group. The ratio of responses to numbers in the sample groups ranged from 0.37

suggestions per teacher to 1.3 suggestions per MS 3, 5 student.

Concerning student achievement, in the RSS schools were found to be fairly selective in entrance examinations. Percentages of passes on final examinations was very high -- about 93% -- for MS 1, 2 and 3, but lower for MS 4 and MS 5 -- between 64% and 83%. At the national level, the proportions of passes in entrance examinations at the M1 to MS 5 levels were very high and uniform -- 91.0% to 97.2%.

The cost per student in the RSS schools, using one method of including a proportion of capital with yearly operating costs, yielded a figure of ฿ 2,150 per student in the RSS schools in the school year 1978.

In student follow-up data, principals' figures showed clearly that from one-fifth to almost one-half of the graduates from both MS 3 and MS 5 were engaged in either completing secondary school or post-secondary programs of study. Universities and teachers' colleges were the setting for most of the post-secondary further education studies.

The training program at The University of Alberta for RSS school administrators graduated the 64 participants between 1975 and 1977. All earned the Certificate of the Faculty of Education in the philosophy and administration of comprehensive high schools.

To sum up the outcomes of the implementation of the RSS Project, it can be concluded that in the perceptions of those most intimately associated with the schools in the Project -- principals, teachers, students and parents and alumni -- the outcomes compared with the stated objectives (and some unstated ones) were in general very positive. Some irritants which would bear follow-up were found to be present in some unidentified schools. Globally, however, it appeared clear that the RSS schools by the measures reported in this chapter were providing good services in secondary education in rural Thailand.

* * * * * * * * * * * *

CHAPTER SEVEN

INTERVIEWS WITH MINISTRY OF EDUCATION PERSONNEL IN THE MINISTRY OF EDUCATION, BANGKOK

As part of the research design of the Co-operative Assessment Project, interviews were conducted with key Ministry of Education Personnel involved in the designing and implementation of the Rural Secondary Schools Project. The Thai Associates identified the persons to be interviewed and arranged appointments with Dr. L.R. Gue, the Interviewer. In some of the interviews, Dr. T.A. Blowers participated. A list of persons interviewed and dates of interview will be found at the end of this section.

Interviews followed a flexible Interview Schedule. Not all persons were asked the same questions, as roles varied greatly and some questions were inapplicable to certain persons. Senior persons were asked the more global questions involving goals, policy and outcomes. Specialists answered chiefly according to their area of specialization or specific duties in the implementation phase.

Generally, eight salient questions were asked, and responses reported by tallies. Such diversity of opinion was elicited that reporting by frequency tables was difficult with some questions. Single pertinent responses have therefore been condensed into footnotes at the end of some tables.

Question 1: What was the Ministry's perception of the need for the R.S.S. Curriculum compared with the C.S.S. (CIDA) schools' curriculum?

Table 127

Summary of Responses to Question 1 in Interviews with Ministry of Education Personnel, Ministry of Education, Bangkok

Response	Tally
A new curriculum was needed for the whole country	6
Compulsory subjects and electives were introduced	6
The country could not afford the Comprehensive curriculum for all secondary schools	5
There was a need to change to the credit system for subjects	4
The Comprehensive curriculum was successful in senior secondary grades	3
Teaching of life skills was believed necessary in rural areas	3
Other* (less than 3 responses each)	10
Total	37

*"Other" included:

-- Ministry policy
-- Subject matter different
-- Needs and resources integrated with community
-- Improve the quality of life of the Thai people
-- 3-track program not too effective
-- Further opportunities needed after MS 3
-- Obsolescence of curriculum in Electronics and Electricity
-- Not enough seats in the universities
-- To meet the needs of pupils due to individual differences

* * * * * * * *

Question 2: Why was a special unit needed in the Ministry of Education to implement the R.S.S. Project?

Table 128

Summary of Responses to Question 2 in Interviews with Ministry of Education Personnel, Ministry of Education, Bangkok

Response	Tally
The project would get lost if done in the routine way	4
A requirement of the World Bank Loan	4
To meet the time limit for the Project	3
To co-ordinate activities (Supervisory Unit unable to do this)	3
Other* (1 response each)	7
Total	21

*"Other" included the following:

- -- Convenience, influence, and liaison with foreign advisers
- -- Co-ordination with World Bank and The University of Alberta
- -- Introduction of concepts of project management
- -- Need for overview of all parts
- -- Thai government requrement
- -- Ministry lacked specialists
- -- General Office not interested

* * * * * * * *

Question 3: What was the process used in developing the curriculum for the R.S.S. Project?

Responses to Question 3 tended not to cluster in a form suitable for tabular reporting. The findings are therefore reported in concise narrative or point form under the general headings below.

a) General Principles of Curriculum Development

Responses indicated that the Ministry sought and obtained opinions from a wide variety of sources during the process of curriculum development. Problems were identified and discussed, alternative solutions proposed and appropriate ones selected, and curriculum for lower and upper secondary schools developed systematically over a period of years.

b) Institutions and Institutional Units Involved in Curriculum Development

Responses revealed that the following institutions or sub-units were involved in the development process for the 1975 and 1978 curricula:

-- Department of Educational Techniques
-- Department of Secondary/General Education
-- Supervisory Unit, Department of Secondary/General Education
-- Department of Teacher Training
-- Department of Vocational Education
-- Commercial schools
-- Vocational and technical schools
-- Government secondary schools
-- Instructional Materials Center
-- Institute for the Promotion of Science Teaching
-- National Curriculum Development Centre
-- National Education Council
-- Technical Institutes
-- Universities
    -- Sri Nakarin Wirot
    -- Phra Nakorn
-- American Home Economics Association
-- Peace Corps

c) Communication, Discussion and Development Methods Utilized

Responses indicated that a variety of methods was used in identifying problems, discussing them, and actually writing the curriculum and its accompanying teacher's manuals and texts. The various methods identified were:

- -- Analysis of Problems Committee
- -- Committee for Designing the New Curriculum
- -- Committee on Teacher's Manuals
- -- N.C.D.C. Seminars
- -- Ministerial Committee
- -- Department of Educational Techniques Co-ordinating Committee
- -- National Educational Reform Committee
- -- Subject Area Committees
- -- Subject Area Workshops finalization and writing of materials

d) Try-outs and Evaluation

Responses indicated little try-out or feedback of the new curriculum except in Home Economics. Curriculum was developed and sent out and comments invited. One respondent suggested that the use of the curricula in the 20 CIDA schools, 32 RSS schools and 50 DSS schools was a "try-out." (When considering the 1,400+ Government Secondary Schools, this may be an apposite comment).

e) Sequencing of Curricula

For reference purposes, the following sequencing of the various curricula since 1960 was delineated by one respondent:

i) Lower Secondary

1960 Old Curriculum
1969 Comprehensive Curriculum
1978 New Curriculum

ii) Upper Secondary

1960 Old Curriculum
1969 Comprehensive Curriculum
1975 New Curriculum

Most subject area committees took one year at a time to develop the new curriculum for one grade, phasing each into the system as it was completed. Each subject area committee set up its own meeting schedule and chose its own representatives. In connection with teachers serving on committees, these were frequently nominated by Heads of Departments in the schools.

f) Printing of Curricular Materials

Curricular materials were printed in three places: (1) Kuru Sapha Press, (2) Department of Secondary/General Education offset press, and (3) Private firms.

g) General Comments on Curriculum Development

Responses indicated a massive effort over a long period of time to up-date the curriculum, first for the Comprehensive Schools, then the Diversified Curriculum schools. Wide representation of professional opinion was sought and obtained. Considerable autonomy was granted subject area committees as to their methods of work. Several respondents mentioned the strong influence of the Supervisory Unit of the Department of Secondary/General Education; The Institute for the Promotion of Science Teaching; Khunying Lawan Thanongchan; and the Secretariat of the Department of Educational Techniques, on the total process of curriculum development for the 1975 and 1978 curricula.

* * * * * * * *

Question 4: How well was the R.S.S. Curriculum implemented in the R.S.S. schools?

For purposes of analysis, this question has been divided into five sub-headings: (a) construction of buildings, (b) tendering for equipment and furniture, (c) warehousing, (d) delivery and installation of equipment, and (e) personnel. Since the data did not easily group into tallies, a brief summary of comments is given instead of tables.

a) Construction and Buildings

Only one comment was received: the 20 comprehensive schools were considered experimental, and the 32 R.S.S. schools were constructed satisfactorily on the basis of that experience.

b) Tendering

Conflict existed between the World Bank and the Department concerning the regulation for international tendering and with the regulation requiring acceptance of the lowest tender. Corruption was a problem, with everyone wanting to protect himself. It would not be satisfactory to have the schools do the tendering themselves. The D.S.E.U. Office would have preferred to tender all phases of the Project at once, but could not do so. Tenders were published in English newspapers in Thailand and sent to all embassies in Thailand. Tenders should have contained a clause requiring service representatives in Thailand. In all cases, however, Project schools got better equipment than other schools.

c) Warehousing

Space for the warehouse to receive, check and re-pack equipment was very inadequate from 1975 to 1978, with only one warehouse. Now there are 4 warehouses 20 x 50 m. in size each, which is adequate to service all 1,300 government secondary schools. Because of low qualifications and small numbers of warehouse staff, equipment and its accessories became separated in warehouse and occasionally shipped to wrong schools. The head of the warehouse wrote by hand the inventory cards, at first. Waybills and inventory cards were not received by the schools. Principals didn't understand the problems at the warehouse.

d) Delivery and Installation of Equipment

Equipment for science laboratories and libraries had no delivery or installation problems. Practical Arts equipment had special problems with accessories and attachments. Government trucks of the E.T.O. caused delays. If breakages occurred en route to schools, letters were sent by the Principal to the D.S.E.U. Office, the E.T.O., and the Warehouse. Deliveries were sometimes made before buildings were completed at the schools, but equipment was never late after a building was finished.

e) Personnel in R.S.S. Schools and Bangkok

Three respondents stated that although the Principals had received training at The University of Alberta, they were not skilled in administering schools of 100 or more teachers, especially in the areas of staff participation in administration, and in human relations. Some Principals had been in their positions too long for a new Project. Mention was made of the plan to move Principals every four years. Concerning the apparently significant number of requests by Principals for transfers, reasons given clustered around: distance of the school from Bangkok; human relations; salary; hopes for upward mobility to Teachers' Colleges or Universities. One respondent stated the proportion of requests for transfer was not worse than before the Project.

Two respondents mentioned the lack of specialist teachers, especially in ampur schools, e.g. Fine Arts, Music, Health Education, Librarians, Business Education, Practical Arts. Overall staffing ratios are too high. Deployment of teaching staff could be improved, especially by hiring secretaries and clerical staff to do jobs now done by teachers.

Orientation seminars to the R.S.S. curriculum were good. After the seminars most teachers liked the R.S.S. curriculum. Some poltical infiltration of teachers' and students' ranks has occurred in the sensitive areas, but this is not very popular.

Concerning Central Office personnel in Bangkok, lack of a Procurement Officer and enough Budget Control officers were a great drawback in the R.S.S. Project. Trained warehousemen were needed for Industrial Arts equipment, but not so much for Agriculture, Food and Business Education. Feedback from school personnel concerning goodness or badness of equipment was needed. Division of labor between Departments resulted in some inefficiency.

NOTE: Many of these personnel problems have been remedied at time of writing (1980).

* * * * * * * * *

Question 5: In your opinion, is the R.S.S. Project successful?

Table 129

Summary of Responses to Question 5 in Interviews with Ministry of Education Personnel, Ministry of Education, Bangkok

Response	Tally
Yes	8
Partly	4
No	2
No Opinion	3
Total*	17

*Many additional comments supporting the opinions were given. The seventeen which seemed most pertinent were listed below.

-- The schools are really new (early to give opinion)
-- The R.S.S. schools need much money
-- Industrial Art shops and teachers need improvement
-- Parents understand these schools better; the schools have changed parents' attitudes (10)
-- Successful in terms of concepts and principles
-- Too academic
-- Improvement of secondary education in general is very good
-- Some Principals outside the Project have made their schools diversified
-- Graduates gain more in reality: they become good citizens with good knowledge (2)
-- Budget was only half what was required. Equipment was late.
-- Some schools have not used Business Education equipment
-- Reports indicate success
-- Definitely "yes." If students are academically inclined, R.S.S. schools are o.k. If vocationally inclined, R.S.S. schools strong.
-- CIDA schools sensitized teachers to world beyond the academic
-- R.S.S. schools have become the elite schools
-- Problems are growing very fast
-- Numbers going on to vocational schools growing rapidly

The negative comments on the success of the R.S.S. Project were received almost entirely from subject area specialists or those focussing on short-term frustrations associated with implementation.

Question 6: If you were involved in implementing the R.S.S. Project again, what would you do differently?

Table 130

Summary of Responses to Question 6 in Interviews with Ministry of Education Personnel, Ministry of Education, Bangkok

Response	Tally
Train teachers two or three years before the Project begins	6
Study the adaptation of the curriculum to local needs more thoroughly	6
Would do nothing differently: the Project was all right	2
Other* (1 response each)	14
Total	28

*"Other" included:

-- Look carefully at outcomes
-- Revise equipment specifications if inadequate
-- Give teacher "hands-on" training on equipment
-- Train warehouse staff
-- Have maintenance teams install, demonstrate and repair equipment
-- Establish a new inventory system
-- List problems as they emerge and try to solve them at once
-- Industrial Arts Supervisors visit the schools more often
-- Ask parents for evaluation of Home Economics
-- Training for Guidance counsellors
-- Select Project schools which would likely have MS 4 and 5 soon
-- Plan Practical Arts options more carefully, especially for girls' schools
-- Make all schools co-educational
-- Pick Principals more carefully -- mere presence is not enough

* * * * * * * *

Question 7: In your opinion, what are the trends in secondary education in Thailand?

Table 131

Summary of Responses to Question 7 in Interviews with Ministry of Education Personnel, Ministry of Education, Bangkok

Response	Tally
Comprehensive or diversified schools will continue to offer good service	4
Attitudes will change and favor training-on-the-job instead of going to university	3
Greater emphasis will emerge on vocational education as a result of realization that all cannot go to university	2
Other* (1 response each)	12
Total	21

*"Other" included:

- -- Agriculture is one subject where expansion of program is possible without building more workshops
- -- R.S.S. schools are a nucleus which will be used to demonstrate innovative techniques
- -- School enrolments will drop to 1,500 to 2,000 per school
- -- Schools will be more effective
- -- Business Education will increase
- -- Many students will still want to go to university but lack of money will send them directly into occupations
- -- The percentage of students in secondary school will increase, especially in non-formal education
- -- School fees will continue
- -- Guidance services will increase
- -- Use of work-experience programs will increase
- -- Unequal equipping of schools (to suit local communities) will increase
- -- Specialized options will be developed according to socio-economic structure of a region

* * * * * * * * *

Question 8: What are the future needs of the R.S.S. and other government secondary schools in Thailand?

Table 132

Summary of Responses to Question 8 in Interviews with Ministry of Education Personnel, Ministry of Education, Bangkok

Response	Tally
Equipment and teaching materials	8
Qualified teachers for each subject	4
Community involvement with schools, especially people in rural areas and in business and industry	4
Texts and library books, audio-lingual materials	2
Flexibility in administration	2
Reduction in size of larger schools	2
Other* (1 response each)	24

"Other" included the following:

- -- Better quality of texts
- -- More periods per week for Business Education
- -- Money
- -- Higher fees
- -- Technology for non-formal education
- -- Articulation between R.S.S. and senior Vocational Schools
- -- Co-ordination person to help placement in employment
- -- Shared use of facilities with other schools
- -- Exchange of ideas and discussion
- -- Equalization of quality of schools
- -- School "clusters" in an area
- -- Students should learn objectives of studying
- -- Character-building of students
- -- Budgeting by categories
- -- Technical assistance experts to train teachers and improve administration
- -- Learning centers for the community such as Literacy Centres
- -- Administrative decentralization
- -- Budget for buildings, workshops and furniture for small schools

- Increase teachers' understanding about technology
- Increase parents' and administrator's understanding and attitudes about Home Economics
- Moral education of teachers
- Improvements in Parent-Teacher Association liaison

9. SUMMARY COMMENTS

The purpose of the interviews with Ministry of Education personnel in Bangkok was to attempt to obtain a wider and possibly more detached view of the total RSS Project than would be obtained from personnel in the schools. The selection of interviewees covered a wide spectrum of positions and opinions. Eight basic questions were asked, although not all of every respondent.

Concerning the need for an RSS curriculum, respondents indicated that a need existed for a new curriculum at both Lower and Upper Secondary levels, and the RSS schools profited from this. Further, Thailand could not afford the fully comprehensive curriculum of the CIDA Schools, even though the latter were successful. The change to promotion by credits rather than grades also necessitated a new curriculum.

A special administrative unit was needed to implement the RSS Project because it might otherwise have become lost in the Department. The Supervisory Unit was not geared to do the co-ordination necessary. The unit was also a requirement of the World Bank loan.

Curriculum development involved massive participation from many sectors of the educational milieu in Thailand, many units and sub-units of several Departments, and many working and co-ordination committees. The new curricula were phased in year-by-year, with relatively little try-out before full authorization. Printing of materials used partly government services, partly private firms.

Implementation of the RSS Project was satisfactory as far as buildings were concerned, although some were built behind schedule. Tendering, because of the requirement for accepting the lowest tender and the existence of a certain amount of corruption, was not as efficient as might have been hoped. Warehousing and inventory control were a serious problem in the early stages due to space, staff, and staff training shortages. Delivery and installation of some equipment was satisfactory, but Practical Arts suffered somewhat in this area. Personnel administering the schools sometimes lacked the expertise to manage large schools of over 1,000 students. A lack of specialist teachers was visible. Orientation seminars were productive.

Success of the RSS Project was seen differently by different respondents, depending on their position. Over half of the seventeen respondents thought the RSS Project successful, and one quarter, partly successful. Expensive but successful, was the opinion of one person. Negative comments were received chiefly from specialists who saw only their own field and problems in it.

If the Project were being done again, several respondents stated they would start to train teachers for the Project 2 to 3 years ahead of the changeover to the new curriculum. If done again, more attention would be paid to integration of school programs with local needs.

Concerning trends in secondary education in Thailand, comprehensive or diversified schools and curriculum will persist. Enrolments in the secondary schools will drop to 1,500 to 2,000. The percentage of students in secondary education will increase.

Future needs of the RSS and other government secondary schools will be for equipment and teaching materials, qualified teachers in all subjects, and heavier community involvement in the life of the school. Budgeting by categories is needed, as are administrative decentralization and school clusters for mutual help.

In general, the frankness of the Ministry respondents helped greatly to fill out the picture of a massive, complex undertaking successfully implemented, albeit with some severe administrative problems during implementation. A certain disappointment concerning the diversified schools was seen occasionally, because their very success and popularity had forced them to become selective in admitting students. However, most Ministry respondents were pleased that the general level of secondary education in rural Thailand had been improved by the RSS schools.

MINISTRY INTERVIEWEES

The following persons were interviewed on the dates noted in 1979:

Person	Position	Date of Interview (1979)
1. Dr. Kaw Swasdi Panich	Minister of Education	July 30
2. Mr. Sman Sangmahli	Deputy Under-Secretary of State for Education	August 21
3. Mr. Suradej Vissesurakarn	Director-General, Department of General Education	August 20
4. Mr. Chong Wongkan	Deputy Director-General, Department of General Education	August 20
5. Dr. Vichai Tunsiri	Director, Division of Foreign Relations, Ministry of Education	August 14
6. Mrs. Tapanee Nakorntap	Chulalongkorn University	August 24
7. Mr. Chalee Latti	Chiengmai University	July 20
8. Dr. Sen Keoyote	Project Implementation Unit, Ministry of Education	August 25
9. Mrs. Prapat Yuthasarn-Prasit	Principal, Suwannaram School, Bangkok	August 20
10. Mrs. Premwadee Rodpat	Deputy-Director, Office of Special Projects	August 22
11. Mrs. Samorn Tansathid	Supervisor of Business Education	August 23
12. Mrs. Kaekai Seemakun	Supervisor of English	July 23
13. Mr. Banchong Soonthornsut	Supervisor of Science	July 24
14. Mrs. Chusree Nakajad	Supervisor of Home Economics	August 23
15. Mr. Somsuk Keo-Sathit	Office of Special Projects	August 22
16. Mr. Kamol Vilaiprom	Office of Special Projects	August 20
17. Mr. Ronachai Yanyong	Office of Special Projects	August 24

* * * * * * * * * * * *

CHAPTER EIGHT

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter will be organized to present findings directly related to each of the eight Specific Objectives set forth in Chapter One and in the Detailed Proposal (1978:19). Findings from any chapter in this report which are relevant to a particular Objective will be reported upon under that Objective. After all relevant data have been reported, a general conclusion will be put forth, in *italics*, one objective at a time, concerning the perceived degree of success on the RSS Project in reaching that Objective.

After all eight Specific Objectives have been thus reported upon, an attempt will be made to relate the findings to the General Objectives set forth in Chapter One and the Detailed Proposal (1978:19).

Recommendations will be presented under two headings: (1) Recommendations concerning the design and implementation of any future Assessment or Evaluation studies of this kind, and (2) Recommendations concerning the present RSS schools and other secondary schools in Thailand which use a diversified curriculum.

1. SUMMARY: RATIONALE AND DESIGN

1.1 Rationale

The rationale behind the Co-operative Assessment was three-fold: (1) obtaining a measure of the extent to which the RSS Project schools were reaching their stated objectives, (2) obtaining data to support the amount of time, money and effort spent in diversifying the curriculum in the schools, and (3) obtaining valid and reliable data to aid in future decision-making concerning diversification of the curriculum in all Thai government secondary schools.

The general objectives of the Co-operative Assessment were to appraise the extent to which the RSS Project administration had implemented the terms of the IDA Development Credit Agreement #369 TH, and the extent to which the RSS Project schools had achieved the general and specific objectives established for them in 1973.

1.2 Phases of the Assessment

The Co-operative Assessment Project began with serious discussions in 1976 between the Ministry of Education of Thailand and The University of Alberta in Edmonton, Canada. Considerable correspondence followed, and the Assessment Project was eventually launched, passing through eight phases.

Phase I, (Reconnaissance) was conducted in the first two weeks of July, 1978, when a team of six senior educators from Alberta met with Thai counterparts in Bangkok to discuss the feasibility of evaluating or assessing the impact and effectiveness of selected secondary schools in Thailand. Agreement was reached in principle that a joint Thai-Alberta Co-operative Assessment should be undertaken of the 32 schools in the Rural Secondary Schools Project.

Phase II, (Detailed Proposal), followed. This proposal, written by the Canadian Co-Director, was accepted by Thailand and the International Bank for Reconstruction and Development (World Bank). Letters of understanding were exchanged between the Ministry of Education and The University of Alberta in December, 1978, and implementation began.

Phase III (Basic Planning) and Phase IV (Pre-testing), were conducted during January and February, 1979, by a team of four Alberta educators and four Thai counterparts. Questionnaires and Interview Schedules were produced and pre-tested during this period. Final development of the instruments, in English and Thai, was completed during the March - May period, 1979, in Edmonton and Bangkok.

Phase V (Data Collection), was completed during July and August, 1979 by a team of three Alberta educators, three Thai counterparts, and strong Thai technical support staff.

Phase VI (Data Analysis), was largely completed during the September - November period, 1979, at The University of Alberta. A senior Thai counterpart was seconded to Edmonton for a six-week period to assist with this data analysis. Other technical assistance was received from academic staff and graduate assistants (Thai) in the Department of Educational Administration of The University of Alberta, where the Project was housed.

Phase VII (Interpretation/Review), was completed in Thailand during the period December 6 - 11, 1979. Reviewers were the Thai Co-Director of the Assessment, together with five other Thai associates; the Canadian Co-Director; the External Academic Reviewer; and a representative from the World Bank. Reviewers accepted the Report as a basic document, and suggested a number of additions, revisions and refinements.

Phase VIII (Final Report), was completed early in March, 1980, at The University of Alberta, by the Canadian Co-Director and The University of Alberta Press.

Although not included as a "phase," an external analysis and report upon the Co-operative Assessment and its Final Report was completed by an External Analyst, a senior member of International Development Research Centre, Ottawa, Canada.

1.3 Assessment (Evaluation) Models

The Co-operative Assessment was based on evaluation models proposed by Stufflebeam (1971) and Metfessel and Michael (1967). Stufflebeam's model draws attention to the four major components of a service; Context, Input, Process, Product. These concepts form the foundations of the Assessment. Specifics for instrument development were obtained partly from the Metfessel and Michael model, and partly from some research instruments developed by the Edmonton Public School Board, Edmonton, Canada. From basic conception at the Reconnaissance phase to completion of the instruments, full communication and consensus obtained among Thai and Canadian colleagues.

1.4 Samples: Schools and Individuals

Because of the number, size, and wide dispersal of the RSS Project schools, together with the number of personnel involved, selection of samples of schools and of individuals for the study became necessary. The choice of sample schools was done extremely carefully to ensure representativeness according to phase of the Project, geographic location of the school, level of education offered, size of school, and type of education (boys', girls' or co-educational). All criteria were met by the final sample of sixteen of the thirty-two Project schools.

Eight of the sixteen sample schools were further chosen as site-visit schools for personal visit by the research team. The same criteria as for the selection of the sixteen schools were again successfully applied.

In terms of selection of individuals for questionnaire completion and interview, representativeness was again sought, this time on the basis of position, experience, age, grade or subject taught (teachers' sample), familiarity with the school (parents' and alumni sample). Considerable success was achieved in selection of individuals, although the parent's and alumni sample was skewed towards younger males.

Some seventeen Ministry of Education personnel in Bangkok, selected by the Office of Special Projects' staff, were included in the interview samples, distributed according to position and area of expertise.

1.5 Instrumentation

Six questionnaires and six interview schedules were developed in English for the Assessment, then translated into Thai and back-translated into English as a check. The instruments used a variety of item styles: closed five-point scales, rank-ordering, and free-response items.

1.6 Analysis

All items on all questionnaires were coded in Thailand for computer processing, including arbitrary codes for free responses. Actual computer processing was conducted at The University of Alberta. Tests of statistical significance (F tests and t-tests) were performed on appropriate data, and used in the report where the information added useful knowledge. A great deal of pertinent documentary information was translated from Thai to English by the Thai Associates and made available for analysis.

1.7 Reporting

Contrary to the plan in the Detailed Proposal, extensive use was made of tables in the Final Report in order to provide more concrete data to support the stated findings and conclusions, and provide detailed information leading to further study and research. Certain conventions in reporting style were established and maintained. Chief among these was the use of evaluative and explanatory comments following the presentation of each section of data, and the use of full Summary Comments at the end of each chapter. Photographs were included to convey visually a great deal of factual information in concise form.

1.8 Conclusions Concerning Design of the Assessment

Aside from some overlapping in items, the occasional item which was not clearly understood, a minimum of transcription errors, and a very small number of translation problems, the questionnaires and interview schedules yielded a massive amount of usable data which was internally consistent and demonstrated considerable face and construct validity. Improvements could be made in selection and ordering of items for the various sample groups, and in the layout of the instruments, but the processing and analysis of the data demonstrated that the design was sound.

2. SUMMARY: FINDINGS AND CONCLUSIONS -- SPECIFIC OBJECTIVES

2.1 Findings: Curriculum

Specific Objective #1 for this Assessment was:

> "To appraise the provision of a more flexible and diversified curriculum."

Summary Data	Relevant Sections
Data show that, in general, the sample schools have implemented an appropriate blend of academic and Practical Arts courses.	

Summary Data	Relevant Sections
The RSS schools were generally honoring the basic concept of the diversified curriculum -- the offering of a wide variety of courses and programs, with strengths reported by staff in both Academic and Practical Arts areas.	pp. 50 - 57 p. 59
Constraints existed on the availability of Practical Arts and other electives.	pp. 50 - 52
The curriculum in the schools was generally considered average or better than average.	pp. 73 - 82
The 1969 Curriculum was preferred by principals and teachers over those of 1975 and 1978.	pp. 73 - 76, 79 - 82, 86 - 88
The curricula prepared students adequately either for further studies or for employment, but better for further studies than for employment.	pp. 84, 85
A strong academic thrust was present, as demonstrated by the use of entrance examinations as an admission criterion, and the listing of mainly academic courses as the most important.	pp. 96, 67 - 70
Guidance services were generally considered adequate or better with two exceptions.	pp. 98 - 100
Shortages of learning materials were present, rather acutely in some areas.	pp. 89 - 91
Response patterns to the questionnaires showed three groupings: high ratings -- principals and M1 students; average ratings -- MS 3 students and parents and alumni; low ratings -- MS 5 students and teachers.	p. 111 et passim
Overall, the curricula being used in the schools were popular and successful.	p. 111

Conclusion: Specific Objective #1

Concerning Specific Objective #1, the conclusion is that very satisfactory progress has been made towards providing a flexible and diversified curriculum.

2.2 Findings: Facilities for RSS Schools

Specific Objective #2 for this Assessment was:

"To appraise the provision of needed facilities for each school."

Summary Data	Relevant Sections
The 32 schools in the RSS Project were divided into two groups for purposes of the construction and equipping of buildings. Extensions of buildings at 21 schools ("D" schools) were authorized under the IDA Development Credit Agreement #369 TH, as well as provision for furniture and equipment for eleven other schools ("E" schools). In addition, the Department of General Education constructed buildings at its own expense at many of the "E" schools, sometimes modifying the original plans in accordance with local needs. The total number of buildings constructed, then, is greater than the number shown in the "Schedule of Accomodation" worksheets prepared by the World Bank. A close estimate showed that 1,379 "units" (academic or Practical Arts classrooms or instructional areas, teachers' houses, janitors' houses, sanitary facilities and cafetoriums) were constructed for the RSS Project at a cost of ฿ 273,714,493.10 or US $ 13,685,724.65.	p. 157 p. 158 p. 159 p. 198
School sites generally were found to be good, although a few were deemed inadequate. Parents were quite concerned about the state of the school fence, gate and road. School buildings generally were considered good, but insufficient in number, especially	pp. 165, 166, 222-225

Summary Data	Relevant Sections
in special areas such as gymnasia and washrooms. No gymansia had been planned for the RSS Project, so this stated inadequacy stems from generalized expectations of school staff rather than from specific plans in the Project. An insufficient number of washrooms was agreed by all sample groups to be high on the list of the ten worst features of the schools, especially on students' lists. Teachers' houses were seen as insufficient in number, although the Ministry of Education has a regulation stating that only 60% of the ideal number of teachers' houses could be constructed.	pp. 222 - 225 pp. 220 - 224, 240 pp. 165 - 223
Ratings of the adequacy of the physical plant varied considerably among the types of buildings and the category of respondents. In the general category, "buildings," ratings were at or near the mid-point of adequacy. Concerning specific buildings, ratings ranged from very much below the mid-point to considerably above it. It seemed apparent that the responses to the "adequacy" items varied from rating the functional usefulness of a type of building, to the actual number of certain types of buildings in the school setting.	pp. 165 - 167
Utilization of facilities was reported as generally good. All except two facilities were utilized 65% of the time or more. Highest degrees of utilization were found in Planting, Animal Husbandry, Agriculture and Auto Mechanics. Lowest degrees of utilization were found in Accounting, Drafting, Handicrafts, Leathercrafts and Office Practice. Some extenuating circumstances were found concerning the low degree of utilization in the areas noted.	pp. 169 - 171

Summary Data	Relevant Sections
In response to "best" and "worst" features of the schools, some seeming paradoxes were noted concerning physical facilities. For example, "classroom buildings" appeared among the first ten features of the "best" and "worst" features lists. Possibly this reflected different situations in different schools. However, parents and alumni and Ministry interviewees expressed the opinion that the buildings attracted students.	pp. 220 - 224, 240
In a general query concerning the extent to which the RSS schools had achieved their objective of providing needed facilities, ratings of all groups were very positive.	p. 250

Conclusion: Specific Objective #2

Concerning Specific Objective #2 the conclusion is that the facilities which were constructed for the RSS Project were generally satisfactory, but that considerable inadequacies exist in some identified areas.

2.3 Findings: Assignment of Qualified Teachers

Specific Objective #3 for this Assessment was:

> "To appraise the assignment of qualified teachers to carry out the learning and teaching situation."

Summary Data	Relevant Sections
One thousand sixty-nine teachers were included in the sample from the sixteen schools. Forty-four percent of the teachers were male, fifty-six percent, female. The average age was 27.1 years. The average experience of all teachers was 7.8 years, 4.9 of which had been spent in their RSS school. Teacher education qualifications were quite high: 20% held a Certificate; 44% a Diploma; 37% a bachelor's degree, and 0.6% a master's degree or higher. The 1,069 teachers held 1,590 credentials in all, granted by 47 institutions -- 39 Thai and eight foreign. Principals reported that their teachers were familiar with the 1969 and 1975 curriculum and with teaching methods. However, principals, teachers and Ministry personnel expressed a need for more and better-trained staff.	p. 34 p. 36 p. 35 p. 198, 199 p. 34 p., 93, 94 pp. 60, 249, 250
In the general query concerning the extent to which qualified teachers had been assigned to carry out the learning and teaching activities, principals, teachers and parents and alumni gave quite positive ratings, although with a considerable divergence of opinion among the principals.	p. 198

Conclusion: Specific Objective #3

Concerning Specific Objective #3, the conclusion is that the RSS Project schools were generally staffed with young, well-qualified teachers in the first decade of their career.

2.4 Findings: Equipment, Supplies and Teaching Aids

Specific Objective #4 for this Assessment was:

> "To appraise furnishing of equipment, supplies and teaching aids in order to facilitate learning."

Summary Data	Relevant Sections
Concerning equipment, principals thought it adequate or better, but teachers thought it inadequate. Concerning supplies, all sample groups thought these as about adequate or less than adequate. Division of opinion was found concerning furniture, with some groups rating it adequate or better, others, less than adequate.	p. 167, 168
Concerning teaching aids (defined here as: textbooks, library and technical books, encyclopaedias and dictionaries; leisure reading books and magazines; films and filmstrips), M1 students were the most satisfied with the quantities, followed by MS 3 and MS 5 students, then parents and alumni, principals, and teachers. Teachers thought the supply of teaching aids inadequate in all six categories. However, there were wide ranges of opinion in all sample groups. In terms of subject areas, more equipment and materials were reported as needed in Practical Arts, Fine Arts, Physical Education, Home Economics and Agriculture. It is possible that some respondents did not know that the Department of General Education supplies only hardware, not paper or plastic learning materials.	pp. 89, 90
Equipment and furniture costs were ฿91,731,512 or US $ 4,086,575.	pp. 178 - 179
In the general query concerning the extent to which the RSS schools had achieved their objective of providing equipment, supplies and teaching aids, principals, teachers and parents and alumni responded in a quite positive manner.	pp. 199 - 200

Summary Data	Relevant Sections
This global rating is somewhat at odds with some specific ratings noted earlier.	

Conclusion: Specific Objective #4

Concerning Specific Objective #4, the conclusion is that generally, the RSS schools had provided equipment, supplies and teaching aids to facilitate learning, but that in some specific areas progress was modest and below the expectations of the various groups involved in this educational enterprise.

2.5 Findings: Supervision and Training Program for Teachers

Specific Objective #5 for this Assessment was:

> "To appraise the provision of a supervision and training program for teachers."

Summary Data	Relevant Sections
Three types of training program were provided for staff of the RSS Project schools: (1) a short-term, intensive training Program at The University of Alberta between 1975 and 1977, focussed upon Principals and Assistant Principals of the RSS schools. Sixty-four persons received this training in Alberta, (2) in-service training by the RSS Project, and (3) school intervisitations between RSS and CIDA schools.	
The Alberta training program was found to be effective by the principals. In-service training was	p. 132

Summary Data	Relevant Sections
satisfactory in the Comprehensive (1969) curriculum, and the 1975 Upper Secondary curriculum, but less so for the 1978 Lower Secondary curriculum. In-service training needs were found to be the most pressing, in the view of the teachers, in the areas of the New Curriculum (1978), teaching methods, and evaluation techniques. Concerning in-service training in subject areas, teachers identified the most pressing ones as Science, Practical Arts, English and Mathematics.	p. 134 p. 132
Concerning internal supervisory practices, many methods were reported. The most frequently used were: Department Head-teacher discussion; principal-teacher discussions; assistant-principal-teacher discussions. Written interaction in supervision was ranked as least used. The data in the study gave no evidence of any systematic training program in internal supervision.	pp. 124 - 128
In the open-ended question concerning "needed school changes," teachers, students and parents and alumni all included either "teaching-learning situation," or "teachers' efficiency" among the changes needed. However, all sample groups reported themselves as satisfied or "very satisfied" with their present school. Ministry personnel also reported that the training program for the new curriculum had been satisfactory.	pp. 224 - 226 p. 155 pp. 213 - 216 p. 249
In the general query concerning the extent to which the RSS schools had provided a supervision and training program for teachers, principals and parents and alumni rated this quite positively, but teachers, slightly below the mid-point.	pp. 200 - 201

Conclusion: Specific Objective #5

Concerning Specific Objective #5, the conclusion is that the Department of General Education had made serious and generally effective efforts to provide a training program for teachers and administrators at the RSS schools, and that the efforts should continue.

2.6 Findings: Quality of the Administration of the Schools

Specific Objective #6 for this Assessment was:

"To appraise the quality of the administration of the schools."

Summary Data	Relevant Sections
The organization of the RSS schools reflects both Ministry policies and regulations and a measure of local autonomy. The number of staff members is set by the Ministry, but considerable freedom exists to deploy the administrative, teaching and service staff in differing ways.	pp. 112 - 116
Teachers' workloads were reasonably uniform throughout the sample schools, averaging 38.4 periods per week of teaching, preparation and non-teaching duties.	pp. 117 - 118
Days and hours of operation are quite consistent throughout the schools, as might be expected in view of Departmental regulations.	pp. 119 - 120
The general procedures in scheduling the schools appear uniform, following the basic pattern set forth in the Deane Report of 1971, but with more information flow between school and community.	pp. 120 - 123
However, it must be noted here emphatically that timetabling a large, diversified-curriculum school by hand is costly and inefficient. It forces the schools	

Summary Data	Relevant Sections
into the use of pre-set "programs" which may under-use facilities. It forces students to take courses which they may not want, and prevents them from taking courses they do want. It uses up vast quantities of staff time doing a task which is essentially mechanical, once the master timetable is set. Computer programs which produce the "conflict matrix" for student timetables are now perfected, available, efficient, economical, and used routinely by many school systems. With the sharply-dropping cost of small computers and the increasing availability of large computers, the Department of General Education of Thailand can no longer afford the expensive and inefficient method of hand-scheduling diversified secondary schools. Computer scheduling is a major tool in getting the greatest value from the heavy investment in building, equipping, staffing, and operating diversified secondary schools. It is no longer an experiment or a novelty. Computer scheduling of schools is common practice which saves time and money and improves staff morale.	
Principals use quite orthodox supervision practices such as inspection of plan books and visitation of classrooms. Staff development is carried on in a considerable variety of ways, including school intervisitations. The in-service training provided by the DSEU (Diversified Secondary Education Unit) of the Ministry was the preferred training program for staff. In-service training needs were expressed clearly in a number of areas. In terms of in-service training given for the 1969, 1975 and 1978 curricula, that provided for the 1969 Curriculum was clearly preferred.	pp. 125-128 pp. 128-130 pp. 131-133
Involvement in decision-making in the school was seen as quite high by principals, but considerably lower by	pp. 136-137

Summary Data	Relevant Sections
teachers, parents and alumni and students. Nevertheless, community involvement in the school generally was considerable, although teachers felt that communication with the community was somewhat below the mid-point. Liaison with the Department of General Education appeared adequate to good, with a considerable number of visits of principals to Bangkok reported each year, and also a number of visits to each school each year by supervisory personnel from Bangkok.	p. 138 p. 139
Concerning the implementation of the RSS Project, principals rated the effectiveness of implementation as high. Teachers also rated it above the mid-point.	pp. 141-142
Nine schools reported operating adult education programs for 2,086 students.	p. 139
Concerning the effectiveness of a number of school services and policies, all samples rated all categories above the mid-point with the exception of the teachers' rating of Health and First Aid services as slightly below the mid-point.	pp. 141-143
Great difficulty was experienced by the research team in getting complete, consistent and comparable data concerning financial management in the schools. Neither from data submitted by the schools, nor from the Department of General Education could be obtained full details, school by school, concerning budgets, revenues or expenditures. Extensive controls and audits were in effect, but the production of clear and comparable statements of revenue and expenditure was not achieved. Part of the problem was in varying uses of standard terms, including "budget," which sometimes referred to the plan	pp. 172-174 pp. 185-187 pp. 182-187

Summary Data	Relevant Sections
for revenue and expenditure, and sometimes to the money actually on hand; "government budget," as contrasted with "locally-raised funds;" "administration" as a category. Apparently no standard practice existed in preparing statements of revenue and expenditure. One reference was made to the need for budgeting by categories rather than lump sums. Some schools were apparently able to obtain special grants from the Department as a result of special situations.	p. 187
A strong need exists for standardization of practice in financial management of schools, which could be achieved in a relatively short time with intensive in-service training in standard accounting procedures.	p. 187
However, sufficient information was obtained from the Office of Special Projects to establish an estimated cost per student in 1978, in the RSS schools, of ฿ 2,150.	pp. 231-232
Discipline in the RSS schools was seen as good by all samples in the study, although a fair range of opinion existed on the topic.	pp. 150-151
Attitudes of students towards community, school and country were perceived to be above the mid-point or well-above, in the view of principals and teachers.	p. 152
The general school atmosphere was also good, with a very high rating given to extra-curricular activities in terms of availability, support, and participation.	pp. 153-154
Teachers interviewed reported that they were well-satisfied with their job in their school.	p. 155

Summary Comments	Relevant Sections
Opinions of principals, teachers and parents and alumni concerning the effectiveness of the administration of the RSS schools yielded mixed findings. Numerical and interview ratings were very positive, but free response data indicate pockets of rather serious dissatisfaction with the administration of some of the schools, which were not identified in this study.	pp. 144 - 148

Conclusion: Specific Objective #6

Concerning Specific Objective #6 for this Assessment, the conclusion is that on the whole, the RSS schools were administered effectively, but that room for improvement existed in several areas, such as scheduling, accounting, and teacher morale.

2.7 Findings: RSS Schools and the Needs of Thailand

Specific Objective #7 for this Assessment was:

> "To appraise the satisfaction of administrators, teachers, pupils, parents and alumni and Ministry officials with the schools in helping to meet the social and economic needs of Thailand."

Summary Data	Relevant Sections
The RSS Project schools were reported by Ministry officials and parents and alumni to be very popular and now understood in terms of their goals. Parents' attitudes were reported as changing towards accepting and encouraging students to follow vocational and technical routes. However, contrary evidence about the	p. 250

Summary Data	Relevant Sections
willingness of students to follow vocational or technical routes was found in data on student aspirations and follow-up. In both these areas, the largest percentage of the students either wished to attend university or college, or were attending. Nevertheless, all respondents in Ministry interviews reported satisfaction with the improvement in the quality of secondary education caused by the RSS schools. The "staying-on" rates of MS 4 and MS 5 have been surprisingly high, contrary to projections.	pp. 203 - 209 p. 250
Some comments were made that the schools offered courses inappropriate to the students or to the local community, but such comments were few. Opinions varied among Ministry personnel in answer to the interview query, "In your opinion, is the RSS Project successful." Eight respondents replied in the affirmative, four replied with a qualified "yes," and the remaining five replied in the negative or did not wish to comment.	p. 250
In the general query about meeting the social and economic needs of Thailand, principals, teachers and parents and alumni rated the success of the RSS schools above the mid-point.	pp. 194 - 195
Concerning a clear answer to the question of the contribution of the RSS schools to meeting the social and economic needs of Thailand, it is probably too early to come to any firm conclusions. What is clear, however, is that larger numbers of students are staying on to higher grades and receiving better general education than prior to the advent of the RSS schools.	pp. 27 - 31

Conclusion: Specific Objective #7

Concerning Specific Objective #7 for this Assessment, the conclusion is that the RSS schools have made a significant positive change in the educational services available at the secondary level in the provinces, through making available a much wider curriculum and generally effective teaching and administration.

2.8 Findings: Other Matters Affecting Schools, Ministry and Local Communities

Specific Objective #8 for this Assessment was:

> "To appraise such other matters as may affect the schools, the Ministry and the local communities as a result of the RSS Project."

Under this section will be presented those findings supplementary to Specific Objectives #1 to #7.

Summary Data	Relevant Sections
2.8.1 Curriculum Development. Ministry Personnel reported a very extensive and thorough process of curriculum development, starting with a high level committee which identified problems, and proceeding to working committees in subject areas. Representativeness on all committees was generally very good, although in one subject area the comment was made that more teachers should have been involved. The influence of one senior administrator seemed disproportionately strong at one phase of the development of the 1975 Upper Secondary Curriculum.	pp. 244 - 247
2.8.2 Evaluation of Student Achievement. Quite differing perceptions were held by principals and	

Summary Data	Relevant Sections
teachers as to who sets examinations for assessment of students, and who makes the pass/fail decisions. The study did not ask concerning the satisfaction of any of the sample groups with the student assessment process.	pp. 101 - 104
Achievement of the Lower Secondary students was remarkably high and uniform on final examinations, but not so high for MS 4 or MS 5. Success on entrance examinations was considerably less than that on final examinations, and excluded thousands of applicants each year.	pp. 227 - 231
2.8.3 Extra-curricular or Co-curricular Activities. The very high rating given the existence of co-curricular activities, the students' opportunity to become involved, and the high degree of support given by staff for such activities is again worthy of mention. Observation of the research team in several schools confirmed the existence of enthusiastic and skilful students and staff in such activities as Band and Takraw.	pp. 71 - 72, pp. 153 - 154
2.8.4 Academic Emphasis. Findings concerning the importance of courses, the further education and career plans of the students, and the lack of Practical Arts teachers in MS 4 and MS 5 in one school all pointed to the continued existence of a strong academic emphasis and preference, although interest and participation in vocational courses was also evident.	p. 67 pp. 203 - 208
2.8.5 Payment for Learning Materials and Supplies. Findings showed that in some schools there was	

Summary Data	Relevant Sections
insufficient money to buy supplies for students to work in Practical Arts courses. Such a situation appears most regrettable in the well-equipped schools of the Project. A "Foundation Grant" from the Department would help.	p. 92
2.8.6 Part-time Employment of Students. A very small number of students (398) reported working part-time jobs from 14½ and 19 hours per week. Earnings ranged from ฿ 166 to ฿ 271 per week. The variety of jobs was quite surprising.	pp. 42 - 44
2.8.7 Program Articulation. Principals thought articulation of the school program within the school, with post-secondary institutions and with the world of work quite adequate, but teachers were more negative in their ratings. This particularly important aspect of a comprehensive or diversified school needs constant attention and the differing opinions merit further study.	p. 58
2.8.8 Some Implementation Specifics. The major treatment of the implementation of the RSS Project will be found under the discussion of General Objectives. However, some specifics are worthy of mention. Among these was the policy of awarding the tender to the lowest bidder, regardless of other considerations such as quality and whether or not the firm had representatives in Thailand. Some of the actual equipment bought for the Practical Arts shops seemed too sophisticated for a diversified secondary school. One example was the very expensive milling machine which had never been put into use in one school.	p. 248

Summary Data	Relevant Sections
Lack of space, trained staff, and inventory processing policy for the receiving, storing, recording, and dispatching equipment were serious problems in the early years of the Project. The Department of General Education and its Office of Special Projects staff deserve a great deal of credit for operating under difficulties for a time, and then remedying the situation.	pp. 248 - 249
2.8.9 What Would You Do Differently in Another Project? In answer to the query, "If you were involved in implementing the RSS Project again, what would you do differently?" Ministry officials replied that they would have teacher training begin two or three years before the new curriculum came into effect; would study the adaptation of curriculum to meet local needs more thoroughly; and possibly do nothing differently: "The Project was done all right."	pp. 251 - 255
2.8.10 Response Patterns in the Assessment. The recurring response patterns of the various sample groups merits comment. Highest ratings were repeatedly given by principals and M1 students. Average ratings were given by MS 3 students and parents and alumni. Lowest ratings were usually given by MS 5 students and teachers. Teachers' ratings frequently dropped below the mid-point when ratings of other sample groups were above that point.	p. 111 et passim e.g. p. 225
The low number of free responses among the teachers (except for suggestions for course additions or deletions), was also interesting.	pp. 60 - 61

Summary Data	Relevant Sections
It can be hypothesized that Principals like their RSS schools and thinking is therefore positive about them. The Hawthorne effect may be operating here, as the Project is still relatively new. M1 students could be hypothesized to feel very happy about their new, exciting, and well-equipped school, compared with their former elementary school. The average or somewhat better ratings given by the parents and alumni might be considered a typical mature Thai reaction, and indeed, a vote of confidence in the schools. The gradually-dropping ratings of the MS 3 and MS 5 students may be hypothesized to be the effect of maturation and judgment, together with rising expectations for secondary schools. If this be so, it is a perfectly normal and healthy reaction for young people, a pattern which has been historically present in all countries in the world. It could be hypothesized to be a very positive demonstration of the students' wish to see their country survive and improve, through its educational system. The consistently low ratings by teachers pose interesting questions. It could be hypothesized that morale among the teachers is not as high as it might be. Another possibility is that the young teachers with a good level of professional preparation hold high expectations for their schools. A third possibility is that an ethos or "world view" of education exists among teachers as a group which makes them focus upon their own classes and subjects	

Summary Data	Relevant Sections
taught, rather than upon the overall view of the RSS schools in their context. Whatever the reason, it is an invitation to further study. 2.8.11 Facets of the Co-operative Assessment Process. The conscious blending of several modes of inquiry in the Co-operative Assessment are deemed by the researchers to have been effective in producing a wealth of data from different sources, some from systems theory, some from a phenomenological base. The data sources used -- questionnaires, interview schedules, documentary study, personal observation through site visitations, and photographs -- gave a breadth of information which was found to be internally consistent. Co-operation in translating data into English was a major strength in the data-gathering process. The time line established in the Detailed Proposal was obviously too short, especially in the Basic Planning, Pre-testing, Analysis, and Report-writing phases. More elegant instruments could have been developed had the Basic Planning and Pre-testing phases been extended. This, in turn, would have made analysis and report-writing more efficient. Nevertheless, within the time constraints of the design, a major problem has been exercising a degree of economy in selecting and writing from the data. The use of the External Academic Reviewer and the External Analyst have been deemed most appropriate and useful, and have led to a better study and guidelines for further improvement in future studies.	

Summary Data	Relevant Sections
2.8.12 Reporting from Grouped Data. As planned, responses from the 16 sample schools were grouped for purposes of analysis. In some numerical data with wider standard deviations than normal, and in conflicting free response data, the clue was given that rather large differences existed between schools on certain facets of their life and operation. Such data merit further study, and have been assembled in such a manner that the situation in each school could be looked at by itself. The presence of these variances within the total study caused a certain number of qualified conclusions to be drawn, but it was deemed appropriate to report in this manner rather than over-generalizing.	

3. SUMMARY: FINDINGS AND CONCLUSIONS -- GENERAL OBJECTIVES

The discussion which follows concerning the degree of success in reaching the General Objectives of the RSS Project and of this Assessment will be based upon the detailed summaries immediately preceding this Part. An apparent overlap in General and Specific Objectives as stated in the Detailed Proposal is explained as an attempt to assess the degree of success in reaching Objectives as seen by observers outside the system, and as seen by those within it. This summary will attempt to reconcile the two complementary points of view.

3.1 Reaching Targets of Development Credit Agreement #369 TH

General Objective #1 for this Assessment was:

> "To appraise the movement towards the implementation of the Targets of Development Credit Agreement #369 TH, dated April 11, 1973."

Based on the preceding discussion of degree of success in reaching the Specific Objectives, a multi-faceted conclusion can be drawn. Concerning General Objective #1 for this Assessment, the conclusions are that:

a) The target for the provision of physical facilities was reached and supplemented by additional facilities provided by the Ministry of Education,

b) The target of the technical assistance program for training of administrators was reached through the Alberta training program,

c) The target of providing a flexible and diversified curriculum was reached in a very satisfactory manner,

d) The target of staffing the schools with qualified teachers was in large part reached,

e) The target of providing equipment, supplies and teaching aids to facilitate learning was reached to quite an extent, although needs still exist in this target area, and

f) The target of providing a supervision and training program for teachers was reached quite well, although needs still exist in this target area.

3.2 Upgrading of Secondary Schools to the Bangkok-Thonburi Level

General Objective #2 for this Assessment was:

> "To appraise the degree of upgrading of secondary schools in towns and rural districts to a level that is competitive with the best schools in the Bangkok-Thonburi area."

The design of this Assessment was not such as to produce the data necessary to make objective comparisons between the RSS schools and Bangkok-Thonburi schools. Perceptions of the RSS schools among teachers, students and parents and alumni were similar, however -- the schools were better than others in their province, but not as good as "the average government secondary school in Bangkok." On the same item, principals thought their school better than the average government school in Bangkok. However, in the item asking principals, teachers, and parents and alumni to rate the degree of upgrading of their school "to a level that is competitive with the best schools in the Bangkok-Thonburi area," principals saw the level of upgrading below the mid-point, whereas teachers and parents and alumni saw it above. Possibly the change in terms from "average" to "best" caused the principals to reduce their rating. In any case, considering the lack of criterion measures for "best," "average," "quality," and "upgrading," only a general conclusion can be drawn from the data comparing RSS and Bangkok schools.

Conclusion : General Objective #2

Concerning General Objective #2 for this Assessment, the conclusion is that sample groups perceived their RSS schools as being considerably better than other secondary schools in their province, but generally, not quite as good as the government secondary schools in Bangkok.

3.3 Provision of Special Programs to Meet Student Needs

General Objective #3 for this Assessment was:

> "To appraise the degree to which the schools provided students with special programs so as to meet the aptitudes and abilities of each student."

On the basis of the extensive data reported in this study on the construction and equipping of buildings, the development of a diversified curriculum, and the provision for varied programs for the students, a conclusion can be stated.

Conclusion : General Objective #3

Concerning General Objective #3 for this Assessment, the conclusion is that the RSS Project schools were making a determined effort to provide students with special programs so as to meet the aptitudes and abilities of each student, with considerable success for the above-average and average student, but with somewhat less success for the below-average student.

3.4 Movement Towards Satisfying Economic and Social Demands of Thailand

General Objective #4 for this Assessment was:

> "To appraise the movement towards satisfying the economic and social demands of the country in consonance with the Third National Economic and Social Development Plan."

As stated in discussing Specific Objective #7, it is probably too early to try to state a firm conclusion about the movement towards Target 4. However, in view of the assumption underlying the development of educational services in all countries that educated individuals will be better citizens than uneducated ones, a tentative conclusion may be stated.

Conclusion : General Objective #4

Concerning General Objective #4 for this Assessment, the demonstrated holding power of the RSS schools in providing students with more years of more diversified education will probably help to satisfy the economic and social demands of Thailand in the years ahead.

4. GLOBAL CONCLUSION

On the basis of the conclusions already presented in this chapter, an attempt will now be made to frame one global conclusion concerning the Rural Secondary Schools Project in Thailand. The conclusion is:

> *The Rural Secondary Schools Project, a massive and complex innovation in rural and district secondary schools in Thailand, has demonstrated the possibility of greatly improving secondary education in the rural areas of the nation. Such schools could well be brought in throughout Thailand, provided adjustments are made to the educational system to offset the selective character of the RSS schools, a phenomenon which has emerged as a result of the success of the schools.*

5. RECOMMENDATIONS CONCERNING THE RSS PROJECT SCHOOLS

The recommendations which follow emerge from the total process of this Co-operative Assessment -- negotiating and planning discussions; structured and free responses to questionnaires and interview schedules; documentary data supplied by the Ministry of Education; observations and experiences in the RSS schools visited; extended discussions with Ministry and school personnel during data-gathering; and the intensive discussion during the Interpretation/Review, Phase VII of the Assessment.

Concerning the recommendations, due allowance must be made for the fact that they were written from a background of the Canadian culture and its educational systems. Thai readers may wish to adapt the recommendations to the Thai cultural and organizational context, but the principles undergirding the recommendations are considered to be sufficiently universal that such principles should remain intact in any process of implementation.

Recommendations will be presented under five headings:

5.1 Curriculum

5.2 Organization and Administration

5.3 Physical Plant

5.4 Financial Management

5.5 Evaluation Studies

Implementation of some of the recommendations could involve more than one Department or Unit in the Ministry of Education, or, indeed, more than one Ministry. Co-ordination at the senior level might therefore be necessary in order to move towards the stated or implied goals of the recommendations.

5.1 Recommendations Concerning Curriculum

Under the heading, "Curriculum," it is recommended that:

	Priority
5.1.1 *Thailand should continue with its plan to diversify the curriculum in all secondary schools,*	High
5.1.2 *The diversification of schools should be accomplished with due regard to environment, resources, and occupations of the local communities in which each school is situated,*	High
5.1.3 *Schools should be encouraged to develop local curricula themselves, suited to their needs and capabilities,*	Medium
5.1.4 *Above-average students be actively encouraged to pursue technical and vocational careers,*	Medium
5.1.5 *Guidance services increase their efforts to provide complete and up-to-date information concerning careers and the institutions which prepare individuals for those careers,*	Medium
5.1.6 *Teacher education services continue to provide instruction concerning new curricula, at both the pre-service and in-service levels,*	High
5.1.7 *Inadequacies in academic learning materials, and in Practical Arts supplies and materials be studied and systematically remedied.*	High

5.2 Recommendations Concerning Organization and Administration

Under the heading, "Organization and Administration," it is recommended that:

	Priority
5.2.1 *The administrative organization of the diversified curriculum schools be studied to determine the most effective type for Thai secondary schools,*	Medium
5.2.2 *Existing efforts to involve the community in decision-making in the school be encouraged and expanded,*	Medium
5.2.3 *The workload of principals, assistant principals, and teachers be studied with a view to reducing the extra demands placed upon them by the use of the diversified curriculum,*	Medium
5.2.4 *Computer scheduling of student timetables be piloted immediately with a view to using it in all diversified curriculum schools in the near future,*	High
5.2.5 *Admission practices be studied closely with a view to establishing other admission criteria than entrance examinations, in order to honor the principle of equality of educational opportunity for all children,*	Medium
5.2.6 *Student follow-up study procedures be examined closely and improvements made upon the good start already in evidence,*	Medium
5.2.7 *Plans for continuing, intensive, short-term training in educational administration, in Thailand, be given high priority.*	High

5.3 Recommendations Concerning Physical Plant

Under the heading "Physical Plant," it is recommended that:

	Priority
5.3.1 *Inadequacies in buildings or equipment identified by respondents in the RSS schools and communities be studied and systematically remedied. Highest priority should be given to increasing the number of sanitary facilities (washrooms), and consideration given to a planned installation of gymnasia, over a period of time,*	High Medium
5.3.2 *Close study be given to improvement of the utilization of physical facilities and professional staff in the RSS schools in certain curricular areas.*	High

5.4 Recommendations Concerning Financial Management

Under the heading, "Financial Management" it is recommended that:

	Priority
5.4.1 *The Department of General Education establish a policy of providing each school with either a flat operating grant or a foundation program grant on a per-student basis, so that no student goes without materials or supplies for lack of funds,*	High
5.4.2 *The Department of General Education establish uniform accounting practices throughout the RSS schools, with special reference to accepted principles and practice in budgeting and in the preparation of annual statements of revenue and expenditure.*	High

	Priority
5.4.3 *The Department of General Education give short-term intensive in-service training in budgeting and the preparation of annual reports of revenue and expenditure for those staff persons in the schools responsible for financial management in the schools,*	High
5.4.4 *Financial records be made retrievable in the Department of General Education on a school-by-school basis.*	Medium

5.5 Recommendations Concerning Evaluation

Under the heading, "Evaluation", it is recommended that:

	Priority
5.5.1 *A school-by-school study of the data generated by this Co-operative Assessment be undertaken in the immediate future with a view to determining the parameters of the many successful schools,*	High
5.5.2 *A teacher morale study be undertaken,*	Low
5.5.3 *A study of the government secondary schools in the Bangkok-Thonburi area be undertaken with a view to assessing their effectiveness and impact,*	Low
5.5.4 *Systematic and continuing evaluation studies of the impact and effectiveness of secondary schools be introduced and budgeted for as standard government policy.*	Medium

6. RECOMMENDATIONS CONCERNING THE CONDUCTING OF A CO-OPERATIVE ASSESSMENT

This Co-operative Assessment Project as a process went very smoothly. All target dates with the exception of the production of the Final Report were met within a few days. Reconnaissance went as scheduled. All required research instruments were jointly developed, tested, translated, and used. All site-visit schools were visited on the appointed days, and time found to visit some non-Project schools. All coding and questionnaire data were completed and mailed to Edmonton within days of the completion of the field work. All documentary data requested by the analysts were provided promptly and fully, with only a few problems of interpretation. No serious illness (with one exception), plagued any members of the team in any of the phases. Although card-punching took longer than anticipated, all required computer runs were produced. In short, the Assessment process could hardly have gone better . . . but the pace at times was arduous.

As a result of the experience gained in this Co-operative Assessment the following recommendations are made for the benefit of possible future studies of the same kind, where Thai and foreign Associates co-operate in an assessment project. The recommendations are that:

1. *The co-operative mode established for this Assessment be continued,*
2. *The Assessment again be designed from a solid theoretical base of general evaluation theory, such as that of Stufflebeam, and an operational framework such as that of Metfessel and Michael,*
3. *Release time for research staff be allowed again,*
4. *The time-line be extended to 24 months from Reconnaissance to submission of Final Report, as follows:*

Activity	Time in Months
4.1 *Reconnaissance*	*1*
4.2 *Proposal production*	*2*
4.3 *Negotiation and contract*	*2*
4.4 *Basic Planning*	*3*
4.5 *Pre-testing and Instrument Refinement*	*2*
4.6 *Data Collection*	*3*
4.7 *Analysis*	*4*
4.8 *Writing Interim Report*	*2*
4.9 *Review/Interpretation*	*1*
4.10 *Writing Final Report*	*2*
4.11 *Printing and binding*	*1*
4.12 *Buffer time (illness, contingencies)*	*1*
Total number of months	*24*

5. *Problem identification be undertaken by the schools during the Reconnaissance Phase,*

6. *Budget provisions for staffing, travel, translation, key-punching, xeroxing and printing be increased, and a 5% contingency line item be introduced,*

7. *More time be allocated early in the Basic Planning phase as to the type, style, sequence, selection and co-ordination of items for different instruments, to facilitate instrument construction, computer programming, and data analysis,*

8. *Decisions concerning use of tests of statistical significance and the reporting thereof be established during the Basic Planning phase,*
9. *Training of data coders be undertaken during the Basic Planning phase, using data from this study as simulation material,*
10. *Back-translation and a second short round of pre-testing be completed and the data coded, punched, and run in Thailand during the Pre-testing phase,*
11. *Documents needed for analysis be provided for the non-Thai Associates by the end of the Pre-Testing phase,*
12. *A lower age-limit be set for students involved in questionnaire completion,*
13. *More days be allocated for each visit to site-visit schools, to make more detailed study possible,*
14. *More interviews be conducted, using random sampling techniques to identify interviewees,*
15. *Time be allocated for discussion of the evaluation process itself at the end of each school visit,*
16. *Budgeting for staff include 2 full-time Associates and one full-time Research Assistant to work with the Co-Director during the Data Analysis and writing of the Interim Report,*
17. *No basic changes in the design of the analysis or of the reporting style be made at the Interpretation/Review stage,*
18. *The use of External Reviewers be continued.*

Following the above recommendations would further improve and refine an already viable and productive Co-operative Assessment process such as has been demonstrated in this research on the thirty-two schools in the Rural Secondary Schools Project in Thailand.

* * * * * * * * * * * * * * *

REFERENCES

International Development Association
1973 "Development Credit Agreement (Third Education Project) Between Kingdom of Thailand and International Development Association. Credit Number 369 TH."

Metfessel, Newton S. and William B. Michael
1973 "A Paradigm Involving Multiple Criterion Measures for the Evaluation of the Effectiveness of School Programs," in Worthen, Blaine R. and James Sanders, Educational Evaluation: Theory and Practice. Worthington, OH., Charles A. Jones Publishing Company.

Ministry of Education, Thailand
1973 "Program for the Improvement of Rural Secondary Schools." Department of General Education. (Mimeographed)

Stufflebeam, Daniel L., Walter J. Foley, William J. Gephart, Egon G. Guba, Robert L. Hammond, Howard O. Merriman, and Malcolm M. Provus.
1971 Educational Evaluation and Decision Making. Phi Delta Kappa National Study Commission on Evaluation. Itaska: F.E. Peacock Publishers, Inc.

The University of Alberta
1978 "Detailed Proposal for a Co-operative Assessment Project of Thirty-two Rural Secondary Schools in the Third Education Project of Thailand." Edmonton: Faculty of Education, October.

APPENDIX A

CO-OPERATIVE ASSESSMENT PROJECT

THAI SUPPORT STAFF

APPENDIX A

SUPPORT STAFF IN SPECIALIZED ROLES

The requirements of a study of this magnitude required extensive support staff, some of whom performed more than one role during the period of the study. These persons have been listed below under four categories: translators, back-translators, coders, principals of the sixteen sample schools and 16 nearby non-Project schools.

1. Translators

Because all instruments were initially developed in English, it was necessary to have them translated into Thai, with the exception of the Principal's Questionnaire. The translators were:

1. Mrs. Jitsai Padungrat
2. Dr. Wanlop Kansup
3. Dr. Sawat Udompoch

As noted early in this report, Mrs. Jitsai, Dr. Wanlop and Dr. Sawat also acted as full Thai Associates in whole study, from Phases I to VII.

2. Back-Translators

Conforming to the usual practice in cross-cultural research where translations from one language to another are involved, all instruments written in Thai were translated back to English by a group of translators who had not seen the original English versions. This valuable service was performed by the following persons:

1. Miss Usa Kanchavatee
2. Miss Orapan Na Bangchang
3. Mr. Pisan Manavapat

3. Coders

All responses on the 5,418 questionnaires and interview schedules had to be recorded on data-processing code sheets according to the scheme developed at The University of Alberta. Many of the responses were open-ended or free responses which required the development of special codes. This total mammoth undertaking was completed in two months by the following persons:

1. Mr. Manoon Kanjanapakde
2. Mrs. Yupin Sinturawet
3. Mrs. Sirima Chewapramong
4. Miss Pojanarut Pornprasit
5. Mrs. Wanpen Chansiriwat
6. Miss Chuanpis Boonchamrus
7. Mr. Surasuk Uraipan
8. Mr. Wirat Eamhirun
9. Mrs. Wandee Madapitak
10. Mrs. Yupin Boonchan
11. Mrs. Tasnee Kunadilok
12. Miss Suporn Limlerttrakoon

4. Principals of the Sixteen Sample Schools

Principals of the sixteen sample schools, which included the eight site-visit schools, completed their own questionnaires arranged for the completion of all other questionnaires, and selected and schedule all interviews with the research team. The principals who performed these tasks so well were:

1. Mr. Charit Charoensir, Singburi School
2. Mr. Tong Insee, Mae-Tang School
3. Mr. Pongpat Dherapratuangkul, Pua School
4. Mr. Chatchawan Thongrod (acting), Sriyaphai School
5. Mr. Rangsan Chuenchom, Phon-thong School
6. Mr. Kong Potibandit, Pan-Phrao School
7. Mr. Tong-In Piapukew, Phota-Wattanaseni School
8. Mrs. Chomyong Supatanabutra, Rayong Wittayakom School
9. Mr. Sombat Chucheepchai, Bangpakong School
10. Mr. Wan Chanphet, Surat-Thani School
11. Mr. Anont Nantaprichar, Benjamarachuthit School
12. Mrs. Chanpen Charoenpalarak, Nari-Nukun School
13. Miss Ladda Chakorn, Benjamathep Uthit School
14. Mr. Chaipong Saichua (acting), Tatum-Prachasermwit School
15. Mrs. Nantiya Ngamkam, Rahtborika-Nukroh School
16. Mr. Manoch Nuansuwan (acting), Ranode Wittaya School

Flag-Raising at Opening Exercises,
Rayong Wittayakom School

5. Principals and Assistant Principals of the Thirty-Two RSS Schools

School	Principals (Present) and Academic Assistants	Past Principals and Academic Assistants (from 1974)
1. Satri Nonthaburi	Mrs. Banjong Niwasabut	--
	Mrs. Kalayanee Tejasen	--
2. Wat Khema-piratarm	Mr. Wannis Wongsanga	1. Mr. Chua Maicharoen (1974 - 1977) 2. Mr. Boonnern Nubanchong (1977 - 1979)
	Mr. Preecha Torboonsupachai	--
3. Samutprakan	Mr. Banjob Sermtong	--
	Miss Sripraphai Pruchaya	--
4. Rayong Wittayakom	Mrs. Chomyong Supatanabutra	--
	Mr. Peerapat Songtiang	--
5. Bangpakong	--	1. Mr. Prasai Cholawasin (1974 - 1975) 2. Mr. Thummanoon Visaijara (1975 - 1977) 3. Mr. Sombat Choocheepchai (1977 - 1979)
	Mr. Sanpang Preeyawong	--
6. Chomsurang	Mrs. Apa Udomrat	--
	Mr. Theranont Limkatturatana	--
7. Singburi	Mr. Chalit Charoensri	1. Mr. Panom Choonhasevi (1974 - 1976)
	Mr. Muang Thongying	--
8. Surat-Thani	Mr. Wan Chanphet	Mr. Choom Tawiwitayarasmi (1974 - 1979)
	Mrs. Sluay Lapchoorat	Mr. Chird Kongthong
9. Sriyapai	Mr. Thummanoon Visaijara	Mr. Wan Chanphet (1974 - 1979)
	Mr. Chatchawal Thongrod	--
10. Chumpae Suksa	Mr. Somkit Komkai	--
	Mr. Prasert Sree-Uttha	Miss Nittaya Wannakun
11. Tung Song	Mr. Supamon Sachaluetawong	--
	Mr. Bandit Watanaprapan	Mr. Manoon Kajanapak
12. Benjamarachuthit	Mr. Seree Lacharoj	Mr. Anont Nantaprichar (1974 - 1979)
	Mr. Somboon Paetamai	--
13. Nari-Nukun	Mrs. Chanpen Charoenpalarak	Mrs. Sirilak Nanthapisai
	Mrs. Jariya Sarakarn	--
14. Mattayom Bangbaw	Mr. Satien Khamnet	--
	Mr. Sampao Manuwat	Mr. Pragas Suwankhosit
15. Benjamathep Uthit	Miss Ladda Chakorn	--
	Mr. Nakorn Tunkapipop	--
16. Satri Kanchanaburi	Mrs. Lamyai Siriwechapan	--
	Miss Arob Cheosethakun	--

School	Principals (Present) and Academic Assistants	Past Principals and Academic Assistants (from 1974)
17. Tatum-Pracha Sermwit	--	Mr. Manoon Yoswichit (1974 - 1979)
	Mr. Chaipong Saichua	--
18. Srisongrak Wittaya	Mr. Paeng Thongpleu	--
	Mr. Sin Sorajja	Mr. Anugoon Bootham
19. Rachborika-Nukroh	Mrs. Nanthiya Ngamkam	--
	Mr. Suwit Manitkoon	--
20. Muangpon Pittayakom	Mr. Prayoon Sombatheera	--
	Mr. Chawalit Suwannee	Mr. Chai Chanindranookool
21. Pan Phrao	Mr. Kong Bhothibandit	--
	Mr. Sup Pila-Ngam	Mr. Chuan Boonsanphan
22. Yangtalad Wittayakarn	Mr. Thirachai Thirakul	--
	Mr. Meedet Panthapol	--
23. Phon-thong Pattana Wittaya	Mr. Rangsan Chuenchome	--
	Mr. Luen Srichantra	--
24. Prasert Wittayakarn	Mr. Vichit Kamtong	Mr. Boonsidthi Seetalanook (1974 - 1976)
	Mrs. Supannee Chantarapakdee	Mr. Somchart Jadsri
25. Pua	Mr. Pongpat Dherapratuangkul	--
	Mr. Chupong Hempisut	--
26. Mae-Tang	Mr. Tong Insee	--
	Mr. Charun Suppasri	--
27. Chae-hom Wittaya	Mr. Pang Srapinkornburi	--
	Mr. Nipon Meesook	--
28. Ranode Wittaya	Mr. Manot Nuansuwan	Mr. Kanit Choopongs (1974 - 1979)
	Mr. Jarut Boonniti	--
29. Ladyao	Mr. Paiboon Chuchalerm	--
	--	Mr. Paiboon Pravoottanont
30. Photaram "Photawattanaseni"	Mr. Tong-in Plapukew	Mr. Samniang Areekit (1974 - 1977)
	Miss Niwa Rangsithananon	--
31. Moiyod	Mr. Sawang Olarikabutr	--
	Miss Madee Prongkaew	--
32. Saithamachan	Mr. Kasian Pooklang	Mr. Suchat Amarutkuan
	Mr. Prasert Pumpruk	Mr. Wera Kengtong

* * * * * * * * * * * *

APPENDIX B

LIST OF SCHOOLS VISITED BY THE CO-OPERATIVE ASSESSMENT TEAM DURING PHASES III TO V OF THE STUDY

(January - February and July - August, 1979)

APPENDIX B

LIST OF SCHOOLS VISITED BY THE CO-OPERATIVE ASSESSMENT RESEARCH TEAM DURING THE STUDY

(Including some Non-Project Schools)

1. Comprehensive Schools (CIDA Project Schools)

School	Province
1. Yuparaj Wittayalai	Chiengmai
2. Had-Yai Wittayalai	Songkla
3. Kaen-Nakorn Wittayalai	Khon-Kaen
4. Roi-et Wittayalai	Roi-et
5. Udorn Pittayanukoon	Udon Thani
6. Samsen Wittayalai School	Bangkok

2. Rural Secondary Schools

School	Province
1. Yangtalad Wittayakarn	Kalasin
2. Satree Kanchanaburi	Kanchanaburi
3. Sai-thamachan	Rajburi
4. Samutprakan	Samutprakan
5. Chumpae Suksa	Khon Kaen
6. Chomsurang Upatham	Ayutthaya

3. Diversified Secondary Schools

School	Province
1. Sanguan-Ying	Supanburi
2. Kanasoot Suksalai	Supanburi

	School	Province
3.	Wisutarangsi	Kanchanaburi
4.	Satri Rachinuthit	Udorn Thani
5.	Lampang Kalayanee	Lampang
6.	Wattanotai-payab	Chieng Mai
7.	Benjamarachuthit	Chanthaburi
8.	Trad Trakarnkun	Trad
9.	Patumtep Wittayakan	Nongkhai
10.	Sreesawat Wittayakarn	Nan
11.	Maha-vachiravut	Songkla
12.	Woranaree Chalerm	Songkla

4. Other Schools (Non-Project)

	School	Province
1.	Suankulab Wittayalai	Bangkok
2.	Satree Wittaya	Bangkok
3.	Hin Ngom	Non-Khai
4.	Thawat Buri Wittayakom	Roi-Et
5.	Nampong Suksa	Khon-Kaen
6.	Nong-Po Wittaya	Rajhaburi
7.	Pukae Wittaya	Saraburi
8.	Prajak Silpakarn Wittayakom	Udorn-Thani

APPENDIX C

INDEX OF QUESTIONNAIRE AND INTERVIEW SCHEDULE ITEMS

Table 133

Index of Questionnaire and Interview Schedule Items

ITEM	INSTRUMENT											
	Questionnaires						Interview Schedules					
	Principals	Teachers	Students		Parents & Alumni	Principals of Nearby Schools	Principals	Teachers	Students		Parents & Alumni	Ministry
			M1	MS 3, 5					M1	MS 3, 5		
Academic Qualifications of Principals	A1	--	--	--	--	--	--	--	--	--	--	--
Adequacy of Course Content	D15	D13	--	--	--	--	--	--	--	--	--	--
Adequacy of Curriculum Objectives	D14	D12	--	--	--	--	--	--	--	--	--	--
Adequacy of Equipment, Supplies & Furniture	F2	D31	B5	B6	A11	--	--	--	--	--	--	--
Adequacy of Facilities (School Site, Buildings and Housing Units)	F4, F5	D32, D34	B5	B6	A11	--	--	--	--	--	--	--
Adequacy of Guidance Program	D24	D23	B7	B8	A47	--	--	--	4	4	--	--
Adequacy of In-service Training	D13	D11	--	--	--	--	--	--	--	--	--	--
Adequacy of Learning Materials	D18	D16	B4	B5	A31	--	--	--	--	--	--	--
Adequacy of Program Articulation	D21	D17	--	--	--	--	--	--	--	--	--	--
Administrative Effectiveness	E25	D29	--	--	A37	--	--	6	--	--	12	--
Adult Education	E8	--	--	--	--	--	--	--	--	--	--	--

*Common to all instruments

Table 133 (Continued)

Index of Questionnaire and Interview Schedule Items

ITEM	INSTRUMENT											
	Questionnaires						Interview Schedules					
	Principals	Teachers	Students		Parents & Alumni	Principals of Nearby Schools	Principals	Teachers	Students		Parents & Alumni	Ministry
			M1	MS 3, 5					M1	MS 3, 5		
Age of Parents and Alumni	--	--	--	--	A5	--	--	--	--	--	--	--
Age of Pupils	--	--	A3	A3	--	--	--	--	--	--	--	--
Appropriateness of Curricula	D17	D15	--	--	--	--	--	--	--	--	--	--
Assignment of Student Grades	D25	D25	--	--	--	--	--	--	--	--	--	--
Assignment of Teaching Staff	E9	--	--	--	--	--	--	--	--	--	--	--
Attendance Policy	--	D45	B17	B20	A17	--	--	--	--	--	--	--
Availability of Practical Arts Courses	--	--	--	--	--	--	11	--	--	--	--	--
Career Influences	--	--	B13	B14	--	--	--	--	--	--	--	--
Career Preparation for MS 3 Graduates	H4	D38	--	--	A43	--	3	--	--	--	--	--
Co-curricular and Extra-curricular Activities	D32	--	--	--	--	--	--	--	--	--	--	--
Communication within the School and with the Community	E18, 19	D36	--	--		--	18	--	--	--	--	--
Community Involvement	E22	--	--	--	A39	--	--	--	--	--	--	--

*Common to all instruments

Table 133 (Continued)

Index of Questionnaire and Interview Schedule Items

ITEM	INSTRUMENT											
	Questionnaires						Interview Schedules					
	Principals	Teachers	Students M1	Students MS 3, 5	Parents & Alumni	Principals of Nearby Schools	Principals	Teachers	Students M1	Students MS 3, 5	Parents & Alumni	Ministry
Comparison with Bangkok High Schools	H10	D52	B28	B31	A27	--	--	--	--	--	--	--
Comparison with Local High Schools	H9	D51	B27	B30	A26	--	--	--	--	--	--	--
Comparison with RSS Schools Closest to You	--	--	--	--	--	1	--	--	--	--	--	--
Course Additions	D8	D6	--	--	A29	--	--	--	--	--	--	--
Course Deletions	D9	D7	--	--	A30	--	--	--	--	--	--	--
Courses Desired but Not Offered	--	--	--	B16	--	--	--	--	--	--	--	--
Course Selection	D2	D43	--	B15	--	--	--	4	9	9	--	--
Curriculum and Local Needs	D23	D20	--	--	--	--	--	--	--	--	--	--
Curriculum and Students Needs	D22	D19	--	--	--	--	--	--	--	--	--	--
Curriculum Development Process for the RSS Project	--	--	--	--	--	--	--	--	--	--	--	3
Delivery of Equipment and Furniture	F3	--	--	--	--	--	--	--	--	--	--	--

*Common to all instruments

Table 133 (Continued)

Index of Questionnaire and Interview Schedule Items

ITEM	INSTRUMENT											
	Questionnaires						Interview Schedules					
	Principals	Teachers	Students		Parents & Alumni	Principals of Nearby Schools	Principals	Teachers	Students		Parents & Alumni	Ministry
			M1	MS 3, 5					M1	MS 3, 5		
Development of Skills and Abilities*	D5	D3	B3	B4	A28	--	2	1	2	2	5	--
Difficulty of School Subjects	--	--	B15	B18	--	--	--	--	--	--	--	--
Discipline Changes	--	--	--	--	A16	--	--	--	--	--	--	--
Distance Students Travel to School	--	--	A7	A7	--	--	--	--	--	--	--	--
Drop-outs by Grade Level	H2	--	--	--	--	--	--	--	--	--	--	--
Duties of Assistant Principal, Academic	E3	--	--	--	--	--	--	--	--	--	--	--
Duties of Assistant Principal, Administrative	E5	--	--	--	--	--	--	--	--	--	--	--
Duties of Assistant Principal, Business	E4	--	--	--	--	--	--	--	--	--	--	--
Duties of Principal	E2	--	--	--	--	--	--	--	--	--	--	--
Effectiveness of Selected School Services and Policies	--	D46	B19	B22	A48	--	--	--	--	--	--	--

*Common to all instruments

Table 133 (Continued)

Index of Questionnaire and Interview Schedule Items

ITEM	INSTRUMENT											
	Questionnaires						Interview Schedules					
	Principals	Teachers	Students M1	Students MS 3, 5	Parents & Alumni	Principals of Nearby Schools	Principals	Teachers	Students M1	Students MS 3, 5	Parents & Alumni	Ministry
Effectiveness of Teachers	E11	D28	B22	B25	A22	--	--	--	7	7	3	--
Enrolments in Academic Subjects	D4	--	--	--	--	--	--	--	--	--	--	--
Enrolments in Practical Arts	A8	--	--	--	--	--	--	--	--	--	--	--
Enrolments in School by Grade	M1	--	--	--	--	--	--	--	--	--	--	--
Equality of Educational Opportunity*	M5	D39	B8	B9	A41	--	14	7	5	5	9	--
Extent of Student Choice of Optional Courses	--	--	--	B15	--	--	--	--	--	--	--	--
Extent of Achievement of Objectives for the Rural Secondary Schools	--	--	--	--	A10	--	--	--	--	--	--	--
Familiarity of Teachers with Curriculum	D11	D9	--	--	--	--	--	--	--	--	--	--
Familiarity with Teaching Methods	D20	D18	--	--	--	--	--	--	--	--	--	--
Financial Management	--	--	--	--	--	--		--	--	--	--	--
Frequency of Reporting	D27	--	--	--	--	--	--	--	--	--	--	--

*Common to all instruments

Table 133 (Continued)

Index of Questionnaire and Interview Schedule Items

ITEM	INSTRUMENT											
	Questionnaires						Interview Schedules					
	Principals	Teachers	Students		Parents & Alumni	Principals of Nearby Schools	Principals	Teachers	Students		Parents & Alumni	Ministry
			M1	MS 3, 5					M1	MS 3, 5		
Future Career Plans	--	--	B12	B13	--	--	--	--	--	--	--	--
Future Education and Post-High School Plans	--	--	B10	B11	--	--	--	--	--	--	--	--
Future Needs of the RSS and Other Government Secondary Schools in Thailand	--	--	--	--	--	--	--	--	--	--	--	8
General School Atmosphere	--	A10	B20	B23	A20	--	--	--	--	--	--	--
General Setting of the RSS Schools *	A1	A1	A1	A1	A1	1	1	1	1	1	1	--
Grade Levels of Children of Parents and Alumni	--	--	--	--	A8	--	--	--	--	--	--	--
Hours of Operation of Schools	E7	--	--	--	--	--	--	--	--	--	--	--
Implementation: Possible Different Action	--	--	--	--	--	--	--	--	--	--	--	6
Importance of Courses	--	--	B21	B24	A21	--	--	--	--	--	--	--
In-Service Training Needs	E16	D30	--	--	--	--	--	--	--	--	--	--

*Common to all instruments

Table 133 (Continued)

Index of Questionnaire and Interview Schedule Items

ITEM	INSTRUMENT											
	Questionnaires						Interview Schedules					
	Principals	Teachers	Students		Parents & Alumni	Principals of Nearby Schools	Principals	Teachers	Students		Parents & Alumni	Ministry
			MI	MS 3, 5					MI	MS 3, 5		
Involvement in Curriculum Development	D12	D10	--	--	--	--	--	--	--	--	--	--
Involvement in Decision-Making in the School	E12	D22	B6	B7	A12	--	6	--	3	3	1	--
Length of Service of Principals	A4	--	--	--	--	--	--	--	--	--	--	--
Level of Education of Parents and Alumni	--	--	--	--	A6	--	--	--	--	--	--	--
Liaison with the Department of General Education	E17	--	--	--	--	--	--	--	--	--	--	--
Living Accomodations of Students	--	--	A6	A6	--	--	--	--	--	--	--	--
Maintenance of School Site, Buildings, Furniture, Equipment and Staff Housing Units	F6	D33	--	--	--	--	--	--	--	--	--	--
Management of School Finances	G4	D55	--	--	A46	--	15	10	--	--	--	--

*Common to all instruments

Table 133 (Continued)

Index of Questionnaire and Interview Schedule Items

ITEM	INSTRUMENT											
	Questionnaires						Interview Schedules					
	Principals	Teachers	Students		Parents & Alumni	Principals of Nearby Schools	Principals	Teachers	Students		Parents & Alumni	Ministry
			M1	MS 3, 5					M1	MS 3, 5		
Meeting Course Objectives	D16	D14	--	--	--	--	--	--	--	--	--	--
Meeting Needs of Local Community	E21	D35	B2	B3	A32	--	12	--	--	--	6	--
Methods of Improving Financial Support for School	--	--	--	--	--	--	16	--	--	--	--	--
Methods of Reporting Student Marks to Parents	D26	--	--	--	A33	--	--	--	--	--	--	--
Most Difficult Courses	--	--	--	--	A14	--	--	--	--	--	--	--
Need for a Special Unit in the Ministry of Education to Implement the RSS Project	--	--	--	--	--	--	--	--	--	--	--	2
Need for RSS Curriculum Compared with the CSS (CIDA) Schools Curriculum	--	--	--	--	--	--	--	--	--	--	--	1
Needed Program Improvements or Modifications	D7, D10	D5, D8	--	--	--	--	5	3	--	--	--	--

*Common to all instruments

Table 133 (Continued)

Index of Questionnaire and Interview Schedule Items

ITEM	INSTRUMENT											
	Questionnaires						Interview Schedules					
	Principals	Teachers	Students MI	Students MS 3, 5	Parents & Alumni	Principals of Nearby Schools	Principals	Teachers	Students MI	Students MS 3, 5	Parents & Alumni	Ministry
Needed School Changes	--	D49	B26	B29	A25	--	--	8	8	8	4	--
Number of Drop-outs by Reasons	D30	--	--	--	--	--	--	--	--	--	--	--
Number of Parents' and Alumni Children Attending School	--	--	--	--	A8	--	--	--	--	--	--	--
Parental Observation of Schools in Operation	--	--	--	--	A50	--	--	--	--	--	--	--
Parents' Influence on Students' Choice	--	--	--	--	A13	--	--	--	--	--	--	--
Parent's or Guardians Experience with Drop-outs from their Homes	--	--	--	--	A45	--	--	--	--	--	--	--
Part-time Employment of Students	--	--	B23	B26	--	--	--	--	--	--	--	--
Payment for Learning Materials	D19	--	--	--	--	--	--	--	--	--	--	--
Practical Arts Enrolment	D3	--	--	--	--	--	11	--	1	1	--	--
Program Strengths	D6	D4	--	--	--	--	4	2	--	--	--	--

*Common to all instruments

Table 133 (Continued)

Index of Questionnaire and Interview Schedule Items

ITEM	INSTRUMENT											
	Questionnaires						Interview Schedules					
	Principals	Teachers	Students		Parents & Alumni	Principals of Nearby Schools	Principals	Teachers	Students		Parents & Alumni	Ministry
			M1	MS 3, 5					M1	MS 3, 5		
Preparation of Examinations			--	--	--	--	--	--	--	--		--
Program Supervision	--	--	--	--	--	--	7	--	--	--	--	--
Provision for Differing Intellectual Abilities	D1a	D1a	B1	B2	--	--	1	--	--	--	--	--
Provision for Individual Differences: Miscellaneous	D1b	D2	--	--	--	--	--	--	--	--	--	--
RSS Project Implementation	E26	D53	--	--	--	--	13	--	--	--	--	4
Reasons for Choosing Practical Arts Electives	D2	--	--	B1	--	--	--	--	--	1	--	--
Reasons for Drop-outs	D30	D27	--	--	A45	--	--	--	--	--	11	--
Reporting Students Marks to Parents	D26	--	--	--	--	--	--	--	--	--	--	--
Satisfaction with Amount of Homework Assigned	--	--	--	--	A19	--	--	--	--	--	--	--
Satisfaction with Current RSS Project School	--	D40	B9	B10	--	--	--	--	--	--	--	--

*Common to all instruments

Table 133 (Continued)

Index of Questionnaire and Interview Schedule Items

ITEM	INSTRUMENT											
	Questionnaires						Interview Schedules					
	Principals	Teachers	Students		Parents & Alumni	Principals of Nearby Schools	Principals	Teachers	Students		Parents & Alumni	Ministry
			MI	MS 3, 5					MI	MS 3, 5		
Satisfaction with Home-School Communications	--	--	--	--	A38	--	--	--	--	--	--	--
Satisfaction with Student Admission Criteria	--	--	--	--	A36	--	--	5	--	--	7	--
Satisfaction with RSS School Compared wtih Former Academic School	H6	--	--	--	--	--	--	--	--	--	--	--
Satisfaction with Hours of Instruction	--	--	--	--	A49	--	--	--	--	--	--	--
Satisfaction with Reporting Methods	--	--	--	--	A34	--	--	--	--	--	--	--
Selection and Use of Practical Arts Electives	A10	--	--	--	--	--	--	--	--	--	--	--
Scheduling (Timetabling) of the School	--	--	--	--	--	--	10	--	--	--	--	--
School Budget	G5	--	--	--	--	--	--	--	--	--	--	--
School Discipline	E24	D44	B16	B19	A15	--	--	--	--	--	--	--
School Fees	G2	D56	B29	B32	A40	--	--	--	--	--	10	--

[a] Common to all instruments

Table 133 (Continued)

Index of Questionnaire and Interview Schedule Items

ITEM	INSTRUMENT											
	Questionnaires						Interview Schedules					
	Principals	Teachers	Students		Parents & Alumni	Principals of Nearby Schools	Principals	Teachers	Students		Parents & Alumni	Ministry
			M1	MS 3, 5					M1	MS 3, 5		
School Organization	E1	--	--	--	--	--	--	--	--	--	--	--
School Rating*	H8	D50	B18	B21	A18	--	19	9	6	6	2	--
School Revenue	G1	--	--	--	--	--	--	--	--	--	--	--
Shortages of Learning Materials	--	--	--	--	--	--	17	--	--	--	--	--
Socio-Economic Status of Students	A10	--	--	--	--	--	--	--	--	--	--	--
Source of Financial Support (Expenditures)	G3	--	--	--	--	--	--	--	--	--	--	--
Source of Pass/Fail Decisions	D28, H3	D26	--	--	--	--	--	--	--	--	--	--
Source of Funding for Selected School Expenses	--	--	A8	A8	--	--	--	--	--	--	--	--
Staff Development	E14	D24	--	--	--	--	8	--	--	--	--	--
Staff Meetings and Council	E20	D37	--	--	--	--	--	--	--	--	--	--
Student Admission Criteria	D29	--	--	--	44, 35	--	9	--	--	--	8	--
Student Assessment	D25	D25	--	--	--	--	--	--	--	--	--	--
Student Follow-Up	H11	--	--	--	--	--	--	--	--	--	--	--

*Common to all instruments

Table 133 (Continued)

Index of Questionnaire and Interview Schedule Items

ITEM	INSTRUMENT											
	Questionnaires						Interview Schedules					
	Principals	Teachers	Students M1	Students MS 3, 5	Parents & Alumni	Principals of Nearby Schools	Principals	Teachers	Students M1	Students MS 3, 5	Parents & Alumni	Ministry
Student Transfers	D31	--	--	--	--	--	--	--	--	--	--	--
Students' Attitudes	E23	D54	--	--	--	--	--	--	--	--	--	--
Success in Promoting National Unity	H7	D41	B14	B17	A42	--	--	--	--	--	--	--
Success of the RSS Project	--	--	--	--	--	--	--	--	--	--	--	5
Supervision of the Instructional Program	E13	D21	--	--	--	--	--	--	--	--	--	--
Teacher Education	--		--	--	--	--	--	--	--	--	--	--
Teacher and Student Populations in the RSS Schools	A6, A7	--	--	--	--	--	--	--	--	--	--	--
Teacher's perceptions of reasons reasons for drop-outs	--	D27	--	--	--	--	--	--	--	--	--	--
Teacher's Job Satisfaction	--	--	--	--	--	--	--	11	--	--	--	--
Teacher's Qualifications and Experience	E10	--	--	--	--	--	--	--	--	--	--	--
Ten Best Features of the RSS Schools	--	D47	B24	B27	A23	--	--	--	--	--	--	--
Ten Worst Features of the RSS Schools	--	D48	B25	B28	A24	--	--	--	--	--	--	--

*Common to all instruments

Table 133 (Continued)

Index of Questionnaire and Interview Schedule Items

ITEM	INSTRUMENT											
	Questionnaires						Interview Schedules					
	Principals	Teachers	Students		Parents & Alumni	Principals of Nearby Schools	Principals	Teachers	Students		Parents & Alumni	Ministry
			M1	MS 3, 5					M1	MS 3, 5		
Training Effectiveness	E15	D42	--	--	--	--	--	--	--	--	--	--
Trends in Secondary Education in Thailand	--	--	--	--	--	--	--	--	--	--	--	7
Types of Teaching Certificates	--	A9	--	--	--	--	--	--	--	--	--	--
Utilization of Specialized Facilities	F1	--	--	--	--	--	--	--	--	--	--	--

*Common to all instruments

APPENDIX D

LIST OF SUPPORTING DOCUMENTS AVAILABLE TO THE RESEARCH TEAM

-page 320-Blank

APPENDIX D

LIST OF SUPPORTING DATA

1. Documents Directly Related to the R.S.S. Project

Briefing Paper for Principals, May, 1979
Buildings Planned and Completed
Costs of Civil Works
Development Credit Agreement #369 TH (World Bank)
Enrolments in R.S.S. Schools, 1977 - 1979
Equipment Lists for R.S.S. Schools
Financial Summaries, School Year 1979
Implementation, Expenditure and Disbursement Schedule
Implementation Schedule
Interview Sample Selection Criteria
Personnel in Alberta Training Program
Personnel Involved in the Co-operative Assessment
Program for the Improvement of Rural Secondary Schools
Program of Study (typical R.S.S. Project school)
Progress Reports, Development Credit Agreement #369, TH
Results of Entrance Examinations, 1974 - 1979 (National)
Results of Final Examinations, 1974 - 1978 (National)
Schedule of Accomodation Areas and Costing
Staffing and Student-Teacher Ratios

2. Background and Other Documents

2.1 Chulalongkorn University: Abstracts of Master of Education Theses Concerning CIDA Comprehensive Schools

Aspirations for Post-Secondary Education of Comprehensive High School Students in Bangkok Metropolis
Counselor Characteristics as Preferred by Co-educational Comprehensive High School Students in Thailand Central Region
Implementation of 2518 B.E. Upper Secondary School Curriculum in Comprehensive Schools
The Physical Fitness of Secondary School Students of Pibulvitayalai Comprehensive School and Certain Government Schools
Problems Concerning the Utilization of Audio-Visual Aids in Comprehensive Secondary Schools
The Utilization of School Plants in the Comprehensive Secondary School Project
Word Frequency of English Class Readers for Lower Secondary Comprehensive Schools

2.2 Ministry of Education

1972 1972 Advance Report of Education Statistics. Bangkok: National Statistical Office, Office of the Prime Minister, and Educational Planning Division, Office of the Undersecretary.

1967 Comprehensive School Project, 1967 - 1973

1973 "Comprehensive School Movement in Thailand"
1966 "Feasibility Study in Relation to a Comprehensive School Project in Thailand, 1966"
1967 "Loan Agreement, Comprehensive School Project in Thailand, 1967"
1967 "Memorandum of Understanding, Canada-Thailand, Comprehensive School Project, 1967:
1974 Comprehensive Secondary Education Development Project Evaluation and Follow-up Report, 1967 - 1973. Bangkok: National Education Commission, 1974.

1963 Education in Thailand, 1963

1971 Education in Thailand, 1971

1978 Educational Profile: The Expansion of Compulsory Education (Summary)

1974 Fourth Education Project: Provincial Secondary Schools Development Project 2 (October, 1974)

1960 National Scheme of Education, B.E. 2503

1975 "Recommendations for Education Reform, 1975"

1979 "School Population in Thailand, Grades 6 - 12" (1960, 1967, 1978), Planning Office, Department of General Education.

1977 Thailand National Education Scheme, 1977

2.3 U.S. Office of Health, Education and Welfare

1973 Education in Thailand: Some Thai Perspectives

* * * * * * * * * * * *

APPENDIX E

ENROLMENT CHECK OF GOVERNMENT SECONDARY SCHOOLS, ACADEMIC YEARS 1977 AND 1978

APPENDIX E

Table 134

Enrolment Check of Government Secondary Schools, Academic Year, 1977 - 1978

(Department of General Education Planning Division Data, 1980)

	1977		1978	
	Target	Actual	Target	Actual
School size				
No. of classes	1,079	1,330	1,343	1,479
No. of students	43,160	49,160	53,730	58,821
Pupil-Teacher ratio (total)	18:1	19:1	18:1	19:1
Rest of Thailand				
Other with Project * A + B	814,600	792,624	1,120,470	1,089,156
Other without Project A + B	667,150	635,296	939,320	908,719
Total (all schools)	857,760	842,046	1,174,200	1,147,977
Project A -- DSS	93,370	100,269	123,750	116,740
Project B -- CIDA	54,080	57,059	57,400	63,697
Project C - RSS	43,160	49,422	53,730	58,821
TOTAL	190,610	106,750	234,880	239,258

* Project A -- Diversified Secondary Schools Project

B -- Canadian International Development Agency (CIDA) Project -- Comprehensive Schools

C -- Rural Secondary Schools Project

APPENDIX F

LIST OF NEARBY GOVERNMENT SECONDARY SCHOOL PRINCIPALS

APPENDIX F

PRINCIPALS OF NEARBY NON-PROJECT SCHOOLS

1. Mr. Amnuay Tuatip
2.
3. Mr. Montree Pooyatorn
4. Mrs. Prayong Supanit
5. Mr. Yuenyong Klinrat
6. Mr. Amnuay Wirojana
7. Mr. Pichai Mooksombat
8. Mrs. Ubon Chanchaijak
9. Mr. Supit Charanyanon
10. Mr. Radom Nilsree
11. Mr. Wichean Chuprayoon
12. Mr. Komon Chantravaree
13. Mr. Wisut Wirojanarom
14. Mr. Paitoon Chainan
15. Mr. Udom Na. Patalung
16. Mr. Prawit Kummanee

* * * * * * * * * * * *

APPENDIX G

MINISTRY OF EDUCATION REGULATIONS CONCERNING STUDENT EVALUATION FOR THE VARIOUS CURRICULA IN USE IN GOVERNMENT SECONDARY SCHOOLS IN 1980

Regulations on Evaluation According to the Various Curricula Currently in Use in Secondary Schools

1. Comprehensive Curriculum (1969 Curriculum)

The credit system is used in individual subjects for pass/fail decision. However the grade point average of all subjects is taken into consideration for the pass/fail decision of each class as follows:

1.1 Pass/fail decision of each subject. There are five grades: A. B. C. D. E.; each grade commands the following points:

A = 4, B = 3, C = 2, D = 1, E = 0

1.2 Criteria for grade promotion and course completion

1.2.1 Students who are qualified to be promoted from MS 1 to MS 2 or MS 2 to MS 3 must obtain the following examination results:

(a) No more than 2 fails in compulsory subjects;

(b) Upward of 1.00 in grade point average of all subjects in that year.

1.2.2 Students who pass MS 3 examination must obtain the following results:

(a) No more than 1 fail in compulsory subjects;

(b) Upward of 1.00 in grade point average of all subjects in that year.

1.3 Decision-maker for course marks and grade promotion

Director/Principal

1.4 Decision-maker for course completion (persons who make it legal)

Schools in the central region: Director-General of the Dept. of Gen. Ed.

Schools in the provinces: Governor

2. Upper Secondary Curriculum B.E. 2518 (1975 Curriculum)

The credit system is used for pass/fail decision in individual subjects. There is no grade promotion:

2.1 Pass/fail decision of each subject. There are five grades: 0, 1, 2, 3, 4; 0 is considered a fail mark and carries no credit.

2.2 Pass/fail decision of course completion. To complete a course, students must obtain 100 cumulative credits from the total of 140 credits.

2.3 Decision-maker for academic results

Director/Principal

3. Lower Secondary Curriculum B.E. 2521 (1978 Curriculum)

The credit system is used for pass/fail decision in individual subjects. There is no grade promotion.

3.1 Pass/fail decision of each subject. There are five grades: 0, 1, 2, 3, 4; 0 is considered a fail mark and carries no credit.

3.2 Pass/fail decision of course completion. Students must have accumulated a total of no less than 85 course units (2 periods: per week: per semester = 1 course unit) out of a grand total of 96 course units over the 3 academic years.

3.3 Decision-maker for academic results

Director/Principal

Evaluation Procedures in Various Curricula

	1969 Curriculum	1975 Curriculum	1978 Curriculum
Test production staff	Each course teachers set the examination papers which are scrutinized by the head of department. Each school produces its own tests.	Each course teachers set the examination papers. Cluster of schools set examination papers for compulsory subjects.	Each course teachers set the examination papers for compulsory subjects.
Grade levels determination authority	Course teachers determine the grade levels. Each school determines its grade leves independently.	Course teachers of each school determine the grade levels.	Course teachers of each school determine the grade levels.
Review of marks and grade levels authority	Heads of department, the school Chief Evaluator, and the vice-principal for academic affairs constitute the authority. The Principal reviews individual problems.	Heads of department. The school Chief Evaluator and the vice-principal for academic affairs constitute the authority. The Principal will submit any problems to the cluster of school for consideration.	Heads of department, the school Chief Evaluator, and the vice-principal for academic affairs constitute the authority. The principal will submit any problems to the cluster of school for consideration.
Grade levels approval authority	The Principal approves the grade levels submitted by the school academic committee.	The Principal approves the grade levels as agreed upon by the school group.	The principal approves the grade levels as agreed upon by the school group.
Pass/fail decision authority	Director/Principal	Director/Principal	Director/Principal

APPENDIX H

ANALYSIS OF THE VARIED PATTERNS OF SCHOOL ORGANIZATION

1. SCHOOL ORGANIZATION

1.1 School Organization

Principals submitted copies of organization charts for the 16 sample schools. An analysis of these charts is shown in Table 135. The analysis showed that there appeared to be three different patterns of school organization. The first and most frequently utilized of all (8 cases) was the Academic-Business-Administration Type (ABAdm). Quite frequently utilized (5 cases) was the Academic-Business-Discipline pattern (ABD), and the Academic-Administrative-Discipline patterns (AAdmD) was the least frequent of all (2 cases). There was one case in which the organization was extraordinarily flat and major functions were dispersed among key personnel, with a noticeable Academic-Business component (AB).

Table 135 also illustrates further the organizational patterns of the 16 schools, about half of which had certain components additional to the three basic components mentioned above.

These additional components contained certain elements which would ordinarily be included in the basic component. They were such common elements as Services, Guidance and Students' Activity.

Table 135

Basic and Additional Components in the Organization of the Sample Schools

Pattern	Basic Components			Additional Components		
	Academic	Business	Administration			
	Academic	Business	Administration			
	Academic	Business	Administration			
ABAdm	Academic	Business	Administration	Services		
	Academic	Business	Administration	Guidance		
	Academic	Business	Administration	Services	Activities	
	Academic	Business	Administration	Guidance		Co-operative
	Academic	Business	Administration	Planning	Guidance	Activities and Publicity
	Academic	Business	Disciplinary			
	Academic	Business	Disciplinary			
ABD	Academic	Business	Disciplinary			
	Academic	Business	Disciplinary	Services		
	Academic	Business	Disciplinary	Services	Guidance	Activity
AAmD	Academic	Administrative	Disciplinary			
	Academic	Administrative	Disciplinary	Guidance	Co-ordination	
	Academic, Business, Students' Activity, Evaluation, Guidance, Audio-Visual, Library, Building and Landscape, Welfare					

Table 136 reveals that there were overlaps of functions in the four basic parts of organization -- Academic, Business, Administrative and Disciplinary. Still, many functions were unique to specific parts. Typically, the four parts would include, for example:

a) Academic: Curriculum, measurement, subject departments, guidance, library, audio-visual aids, time-tabling.

b) Business: Finance, accounting, correspondence, materials and supplies, registration, transcripts and certificates.

c) Disciplinary: Student behavior, student government, coordination, personnel, student activities.

d) Administrative: Discipline and regulations, students' government, coordination, security, school development, services.

It is worthy of note that the two parts, Disciplinary and Administrative, were similar in their nature.

Table 136

Sample Functions of Basic Components of the School's Organization

Academic	Business	Disciplinary	Administrative
Curriculum	Finance	Student behavior	Discipline
Measurement	Accounting	Studens' Union	Regulations
Departments	Correspondence	House System	Student Government
Guidance	Materials Supplies	Level Coordination	Student Activity
Library	Registration	Boy Scouts & Girl Guides	Grade Coordination
Audio-Visual	Records & Statistics	Audio-Visual	Security
Research	Transcripts & Certificates	Uniforms	Announcement
Resources	Public Relations	Lost & Found	School Development
Scholarships	Security	Vehicles & residence	Counselling
Time-tabling	Welfare	Welfare	Health Service
Registrar	Janitors	Janitors	School lunch
Student Activity	School Plants	School Plants	Welfare
	Cooperative	School lunch	
	Personnel Admin.	Military Training	

2. DELEGATION AND DIVISION OF LABOR

Leadership roles in the sample schools were carried out by the principal as well as by two or three assistant principals. As pointed out in Section 1.1, School Organization, the assistant principals commonly appointed in these schools were those for academic, business and administration/disciplinary affairs. The duties of the principal and assistant principals were as follows:

2.1 Duties of Principal

2.1.1 *General Functions*. The general functions of the principal included overall management of the school in accordance with official guidelines with respect to development of objectives, overall development and improvement of the school, curriculum, personnel, student activities, facilities, finance, coordination and other matters.

2.1.2 *Specific Functions*. The data suggest that the principal has the following specific functions.

1) Curricular matters:
    - a) Planning, organizing and supervision of the teaching-learning activities; and
    - b) Monitoring, follow-up and assessment of student achievement in accordance with curriculum objectives and assessment guidelines.

2) Personnel matters:
    - a) Delegation of authority to assistant principals and teachers in line with their training and ability, including assignment of duties to janitors;
    - b) Recruitment of appropriate personnel;
    - c) Follow-up and evaluation of staff performance; and
    - d) Responsibility for general security and welfare of school personnel.

3) Student matters:
   a) Looking after students' general welfare;
   b) Supervision of the activities of the students' union and other student activities;
   c) Planning of the students' orientation program; and
   d) Monitoring student guidance and discipline.
4) Physical facilities:
   a) Supervision, control, utilization and maintenance of school facilities; and
   b) Development of plans for additional school facilities and school improvement.
5) Liaison functions:
   a) Coordination with out-of-school resources and agencies;
   b) Coordination with parents and community;
   c) Providing educational consultation to administrators and other agencies outside school;
   d) Communication with Ministry of Education and Department of General Education; and
   e) Meetings of Administrative Committee, Faculty Council, and Staff.
6) Finance, business and in-school services:
   a) Budgetting and requisitioning for funds;
   b) Secretarial and registration procedures;
   c) Financial management of the school; and
   d) Overall services of the school.

2.2 Duties of Academic Assistant Principals

2.2.1 General Functions. In general, the academic assistant assisted the principal in the planning and managing of instructional programs, evaluation and measurement programs, and other academic-related activities in accordance with the ministerial and school guidelines. He also acted as principal in his/her absence.

2.2.2 Specific Functions. The specific functions of the academic assistant principal were included in 5 areas, as follows:

1) Programming:
   a) Organizing and improvement of instructional programs;
   b) Implementation of school policies;
   c) Curriculum development and program planning with teachers;
   d) Time-tabling and class scheduling; and
   e) Course offerings and class enrolments.
2) Supervision and coordination:
   a) Supervision of the teaching-learning process;
   b) Inspection of teachers' lesson plan books;
   c) Arrangement of substitute teachers;
   d) Coordination between departments and between teaching staff and administrative staff; and
   e) Arrangement of department heads' meetings.
3) Evaluation:
   a) Setting evaluation procedures and schedules; and
   b) Monitoring the student assessment program.
4) Services:
   a) Acquisition of textbooks and curriculum materials;
   b) Monitoring school library services;
   c) Monitoring audio-visual aids services;
   d) Monitoring guidance counselling services; and
   e) Provision of instructional materials and services.

5) Students and other:

   a) Student attendance and records;

   b) Student admission and orientation program;

   c) Student extra-curricular activities; and

   d) Organization of special projects.

2.3 Duties of Business Assistant Principal

2.3.1 General Functions. In general, the business assistant was responsible for the control of all the school secretarial work, financial matters and materials and supplies. Typically his/her responsibility included finance, accounting, correspondence, materials, records and certification, and supportive personnel administration.

2.3.2 Specific Functions. The business assistant had the following functions, which to some extent seemed to be overlapping with the functions of other assistants:

a) Office management and correspondence;

b) School records and documents, including the filing system;

c) School finance, budgetting and accounting;

d) Purchasing and inventories of materials and supplies;

e) Security and maintenance of school plants and equipment;

f) Supervision of janitors' work, including school ground and daily opening and closing of the school;

g) Teacher payroll;

h) Student and teacher registration;

i) Certification and graduation of students; and

j) Public relations and liaison with persons or departments within as well as outside of school.

2.4 Duties of Administrative/Disciplinary Assistant Principal

2.4.1 General Functions. In general, the administrative/disciplinary assistant assumed responsibility for matters concerning student discipline and activities, school personnel and services, and planning, development and maintenance of the school plants. It is worthy of note that his functions overlapped with those of the business assistant to some extent.

2.4.2 Specific Functions. The following were specific functions of the administrative/disciplinary assistant as reported by the sampled principals. Some of these functions overlapped with those of other assistants.

a) Student discipline and parental contacts;

b) Student governance, including student unions;

c) Student activities and recreation;

d) Student attendance and report cards;

e) Organization of student assistance;

f) Providing facilities for extra-curricular activities;

g) Student training programs;

h) Promotion of students' attitude toward school;

i) Management of buildings, house system and grade coordination;

j) Assisting in staff meetings;

k) Home-room teacher assignment;

l) Discipline and general welfare of school staff;

m) Supervision of custodial work; and

n) Planning, development and maintenance of school facilities.

* * * * * * * * *

APPENDIX I

TIMETABLING IN COMPREHENSIVE SCHOOLS

(Parts 1 and 2)

by

Stanley G. Deane

Colombo Plan Adviser in Administration

Comprehensive School Project

Thailand

Bangkok, Thailand

July, 1971

TIMETABLING IN COMPREHENSIVE SCHOOLS

In regular secondary schools of Thailand, in the past, timetabling has been a relatively easy procedure. The students purused three broad programs -- the science, the arts, and the general, and all students in each program took practically the same subjects. As a result, each homeroom could be set up so that the students followed identical programs and the whole room could be scheduled throughout the day as a single instructional group.

The introduction of the comprehensive program with its free elective subjects in MS 2 and 3 has introduced a new and highly complicating factor into timetabling. Only in MS 1 and for the cord subjects in the other grades, can whole classes be scheduled together, and move together. In the elective courses it is usually impossible to put together a whole class of over forty students, all of whom are taking the same subjects. Timetabling these grades where electives are permitted must be done on an "individual" basis, and can no longer be done on a class basis.

Practical experience in the comprehensive schools suggests that those who are charged with the responsibility for timetabling in a school cannot learn the new techniques without some assistance. These people should be encouraged to visit schools which are successfully using the new timetabling procedures, and should request help from those supervisors who are familiar with the new techniques. These techniques, which are described in detail in this document, are likely to have only limited meaning for school timetablers without this help.

It is a truism, sometimes overlooked by education officials, that an excellent curriculum only becomes excellent after it has been properly interpreted and applied in the classrooms, and when it results in the desired outcomes in the students. Efficient timetabling is one of the several requirements that must be met if the curriculum is to be effectively applied in the classroom.

1. PRINCIPLES OF TIMETABLING

There are basic principles that should be observed if the timetabling processes are to be efficiently applied in a comprehensive school. Some of the more obvious principles are:

1. In order to start a program of electives in a school, the administration should be reasonably certain that
    - (a) the classrooms, laboratories, shops and other facilities will be available.
    - (b) the required equipment will be available.
    - (c) the necessary staff will be available.
2. The curriculum requirements must be such that they can be executed effectively in the timetabling processes. This implies that the total curriculum requirements can be met, preferably within the school day, or within the school week. The value, for example, of courses taught only once each week, is somewhat questionable.
3. Semestered courses, to be effective, must be integrated with the semesters of universities, other institutions of higher education, and with the employment practices of business and industry.

    Term courses are usually planned to promote flexibility in school programs. In actual practice, however, the opposite effect is often achieved. (See "Diversifying Secondary Schools in Thailand," p. 8 and 9). To properly administer term courses, the school timetable should be revised after each term. This is impractical, as there is not enough time to revise timetables in between school terms.
4. Preparations for timetabling, and the orientation of students and their parents should be commenced as early as possible in the school year. Many decisions on the part of students, parents, teachers and administrators have to be made before timetabling for the year can be completed. Sufficient time must be given for wise decisions to be made.

5. Timetabling in a comprehensive school is a major operation, involving many people and much time. Consequently, it should be conducted only once a year. The long summer recess is the ideal time for most of the scheduling of students into instructional groups.

6. Timetable adjustments can be made whenever the need arises. However, such adjustments should be kept to a minimum. Frivolous requests from students should be discouraged.

7. Timetabling should begin with the most difficult grade levels, and with the most difficult courses. Thus, it is advisable to begin timetabling MS 3 electives first. This principle should also be used within a group of subjects, which suggests that MS 3 Industrial Arts electives should be timetabled first. These might be followed by those subjects that make a heavy demand of time, such as English 33 (8 periods) or English 34 (10 periods).

Following these subjects, the timetabler should next schedule all courses which have a single instructional group (the singletons). The last electives to be done should be those that have many instructional groups, because students can more easily be fitted into classes if there are many of them in various periods of the day.

Finally, the timetabler should schedule the core subjects, since every student takes them. They are the easiest to timetable, as no conflicts occur in the core subjects.

2. SEQUENCE OF TIMETABLING EVENTS

The sequence of timetabling events in comprehensive schools should be started before the end of the second school term. The steps involved are briefly as follows:

1. The school should gather together, during the year, all the current information about new courses which are available in the diversified program. With this information at hand, a survey of the school's facilities and equipment must be made and an estimate of what teaching staff is likely to be available for the following year. By putting

all this information together, the administration of the school can then decide which elective courses the school will be able to offer its students in the following year at each MS level. This step should be completed by the end of the second school term in December.

2. The information and decisions made in step 1 should be published and distributed, and then discussed by the school staff, the students, and their parents. This may be done at the beginning of the last school term, in January. After allowing enough time and discussion for every one to become thoroughly familiar with what the school has to offer, the students should be asked to "pre-register" or made a choice of the programs and electives they desire.

3. Careful checking and analyses of student choices are necessary, as mistakes are commonly made in step 2. Following the checks, a tally should be made to show what electives were chosen, and how many students chose each one, at each MS level. This step should be completed during February.

4. A second analysis by the administration is now necessary to determine:

    a) how many instructional groups of each elective should be set up, and the approximate size of each group.

    b) how many teachers will be required in each subject area.

    c) how the school's facilities can accommodate the proposed groups.

    d) whether large groups should be split into smaller ones, whether small groups should be combined into larger groups, or whether conditions warrant the dropping of some of the electives. In the latter case the affected students should have guidance interviews and be given alternative electives.

Sample tally lists are shown in Tables 4 and 5. They include decisons made in step 4.

5. Department heads should be asked to prepare tentative schedules for their departments. These should show the use of all facilities and staff in each department, and should account for every instructional group shown in the tally lists in step 3 and in the revisions made in step 4. In making up the departmental schedules, two extremes should be avoided. In the first extreme, a teacher is expected to do all his teaching in a single subject. This usually becomes very boring for the teacher. The other extreme is to assign the teacher only one or two classes in each of six or eight different subjects. In this case the preparation load is unreasonable.

6. Using the decisions made in step 4, and the suggestions made by the department heads (step 5), a master timetable should be prepared for the whole school. This will show the proposed assignments of every teacher, and the use of all school facilities. Each of the proposed instructional groups in every core and every elective subject should be provided for. This step should be completed by the end of the school year, in March. A sample master timetable, showing the assignments of four teachers, is shown in Table 1 on page 5.

7. During the long summer vacation the committee in charge of timetabling should complete the actual scheduling of students into instructional groups, and assigning each group to an appropriate teachers and room. This is a difficult and time-consuming process, and will require all the skilled personnel and all the modern labor-saving devices the school can muster. During this period it may be found necessary to make changes in the master schedule (step 6) and to group students differently to the plans made in step 4. However, the care with which the early steps are planned, and the availability of experiened administrative help, should allow the class scheduling to be completed, and results to be ready for distribution to staff and to students before the new school year commences. It is advisable to allow a minimum of one month for step 7.

* * * * * * * * * *

APPENDIX J

COMPARISON OF PLANNED AND ACTUAL AREAS IN FIVE PHASE III RSS PROJECT SCHOOLS

Table 137

Summary of Planned and Actual Areas of Construction for Five Phase III Schools

(Office of Special Projects Data)

	Area		Difference		Cost		Escalation in Cost	
	Planned	Actual	Sq. Metres	Percentage	Estimated 1973	Actual, 1976	Baht	Percentage
D-14 Srisongrak Wittaya	4,128	4,720	+ 592	+ 14.8%	฿ 4,576,000	฿ 8,421,900	฿ 3,845,900	(84.05%)
D-15 Rahtborika-Nukroh	5,996	4,853	- 1,143	- 19.1%	6,649,500	10,066,400	3,416,900	(51.39%)
D-16 Yangtalad Wittayakarn	5,271	5,421	+ 150	+ 2.9%	5,843,200	9,582,300	3,739,100	(63.99%)
D-17 Phon-thong Wittaya	4,038	4,671	+ 633	+ 15.7%	4,440,700	8,035,900	3,595,200	(80.96%)
D-18 Prasart Wittayakarn	4,311	4,844	+ 533	+ 12.4%	4,827,900	8,423,500	3,595,600	(74.48%)
Total	23,744	24,509	+ 765	+ 3.2%	฿ 26,337,300	฿ 44,530,000	฿18,192,700	(69.08%)

NOTE: Total actual area exceeds the original total estimated area by only 3.2%.

Table 138

Planned and Actual Area and Costing

Rural Secondary School: No. D-14   NAME: Srisongrak Wittaya   LOCATION: Loei

Planned (Architectural Worksheets) 1973				Actual Design and Budgeting			
Type of Facilities	No. of Units	Area	Cost	Type of Facilities	Area	1976 Budget	Remarks
Academic	--	2,145	2,574,400	Sc. & Cr. Bldg.	2,242	4,035,600	Actual area exceeds the original estimate by 14.8%. This is mainly due to increased size of the Cafetorium which has one standard size for all schools. A large size Cafetorium is necessary not only for dining and essembly but also for recreational and community functions.
Agriculture W/S	1	220	175,000	Agriculture W/S	175	269,500	
Nursery	1	25	20,000	Nursery	25	20,000	
Home Ec. Lab.	3	450	360,000	Home Ec. Lab.	420	646,800	
Industrial Arts W/S	4	600	480,000	Industrial Arts W/S	700	1,120,000	
Cafetorium	1	250	200,000	Cafetorium	733	800,000	
Sanitary Facilities	--	150	120,000	Sanitary Facilities	126	240,000	
Teachers' Houses	4	250	200,000	Teachers' Houses	268	320,000	
Janitors' Houses	1	37.5	30,000	Janitors' Houses	51	40,000	
Site Development	--	--	416,000	Site Development	--	930,000	
TOTAL		4,128	4,576,000		4,740*	8,421,900	

Table 139

Planned and Actual Area and Costing

Rural Secondary School: No. D-15 NAME: Rahtborika-Nukroh LOCATION: Rajburi

Planned (Architectural Worksheets) 1973				Actual Design and Budgeting			
Type of Facilities	No. of Units	Area	Cost	Type of Facilties	Area	1976 Budget	Remarks
Academic	--	3,120	3,744,300	Sc. & Cr. Bldg.	2,984	6,177,600	
Nursery	1	25	20,000	Nursery	25	20,000	
Home Ec. Lab.	5	750	600,000	Home Ec. Lab.	644	1,122,800	
Industrial Arts W/S	4	600	480,000	Industrial Arts W/S	560	896,000	
Cafetorium	1	625	500,000	Cafetorium	--	--	Already built with non-project budget.
Sanitary Facilities	--	225	180,000	Sanitary Facilities	168	320,000	
Teachers' Houses	8	500	400,000	Teachers' Houses	268	320,000	
Janitors' Houses	4	150	120,000	Janitors' Houses	204	160,000	
Site Development	--	--	604,500	Site Development	--	1,050,000	Principally for electrical and water mains.
TOTAL		5,996	6,649,500		4,853	10,066,400	

Table 140

Planned and Actual Area and Costing

Rural Secondary School: No. D-16 NAME: Yangtalad Wittayakarn LOCATION: Kalasin

Planned (Architectural Worksheets) 1973				Actual Design and Budgeting			
Type of Facilities	No. of Units	Area	Cost	Type of Facilities	Area	1976 Budget	Remarks
Academic	--	2,738	3,286,200	Classroom Bldg.	1,420	2,556,000	
				Sc. & Cr. Bldg.	1,420	2,556,000	
Agriculture W/S	1	220	175,000	Agriculture W/S	175	269,000	
Nursery	1	25	20,000	Nursery	25	20,000	
Home Ec. Lab.	3	450	360,000	Home Ec. Lab.	420	646,800	
Industrial Arts W/S	4	600	480,000	Industrial Arts W/S	665	1,064,000	
Cafetorium	1	625	500,000	Cafetorium	733	800,000	
Sanitary Facilities	--	225	180,000	Sanitary Facilities	126	240,000	
Teachers' Houses	5	312.5	250,000	Teachers' Houses	335	400,000	
Janitors' Houses	2	75	60,000	Janitors' Houses	102	80,000	
Site Development	--	--	531,200	Site Development	--	950,000	
TOTAL		5,271	5,843,200		5,421	9,582,300	

Table 141

Planned and Actual Area and Costing

Rural Secondary School: No. D-17 NAME: Phon-thong Pattana Wittaya

LOCATION: Roi-Et

Planned (Architectural Worksheets) 1973				Actual Design and Budgeting			
Type of Facilities	No. of Units	Area	Cost	Type of Facilities	Area	1976 Budget	Remarks
Academic	--	2,018	2,421,200	Sc. & Cr. Bldg.	2,122	3,019,600	Actual area exceeds original estimate by 15.6%. This is due to the use of larger auditorium and the size of Industrial Arts shops. The shop size in the original estimate was given as an average of 150 m^2 but the actual shop sizes vary from 105 m^2 - 210 m^2 depending on the nature of the subject.
Agriculture W/S	1	220	175,000	Agriculture W/S	175	269,500	
Nursery	1	25	20,000	Nursery	25	20,000	
Home Ec. Lab.	3	450	360,000	Home Ec. Lab.	420	646,800	
Industrial Arts W/S	4	600	480,000	Industrial Arts W/S	700	1,120,000	
Cafetorium	1	250	100,000	Cafetorium	733	800,000	
Sanitary Facilities	--	150	120,000	Sanitary Facilities	126	240,000	
Teachers' Houses	4	250	200,000	Teachers' Houses	268	320,000	
Janitors' houses	2	75	60,000	Janitors' Houses	102	80,000	
Site Development	--	--	403,700	Site Development	--	720,000	
TOTAL		4,038	4,440,700		4,671*	8.035,900	

Table 142

Planned and Actual Area and Costing

Rural Secondary School: No. D-18 NAME: Prasart Wittayakarn LOCATION: Surin

Planned (Architectural Worksheets) 1973				Actual Design and Budgeting			
Type of Facilities	No. of Units	Area	Cost	Type of Facilities	Area	1976 Budget	Remarks
Academic	--	2,353	2,823,400	Sc. & Cr. Bldg.	2,362	4,251,600	Actual area exceeds original estimate by 15.6%. This is due to the use of larger auditorium and the size of Industrial Arts shops. The shop size in the original estimate was given as an average of 150 m^2 but the actual shop sizes vary from 105 m^2 - 210 m^2 depending on the nature of the subject.
Agriculture W/S	1	220	175,000	Agriculture W/S	175	269,500	
Nursery	1	25	20,000	Nursery	25	20,000	
Home Ec. Lab.	3	450	360,000	Home Ec. Lab.	420	646,800	
Industrial Arts W/S	4	600	480,000	Industrial Arts W/S	700	1,120,000	
Cafetorium	1	250	200,000	Cafetorium	733	800,000	
Sanitary Facilities	--	150	120,000	Sanitary Facilities	126	240,000	
Teachers' Houses	3	187.5	150,000	Teachers' Houses	201	240,000	
Janitors' Houses	2	75	60,000	Janitors' Houses	102	80,000	
Site Development	--	--	438,900	Site Development	--	755,600	
TOTAL		4,311	4,827,900		4,844	8,423,500	

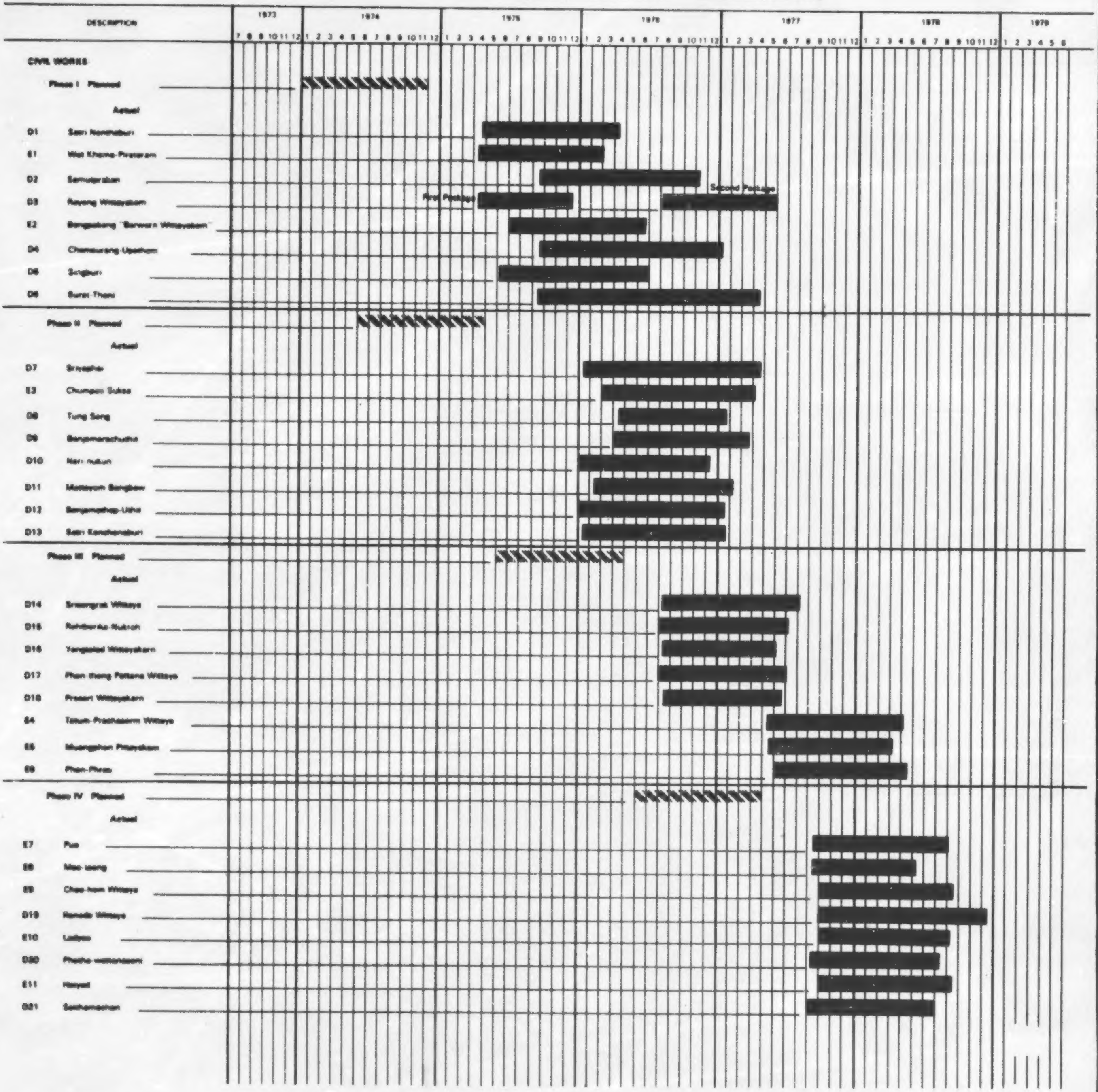
APPENDIX K

IMPLEMENTATION SCHEDULE

FIGURE 2

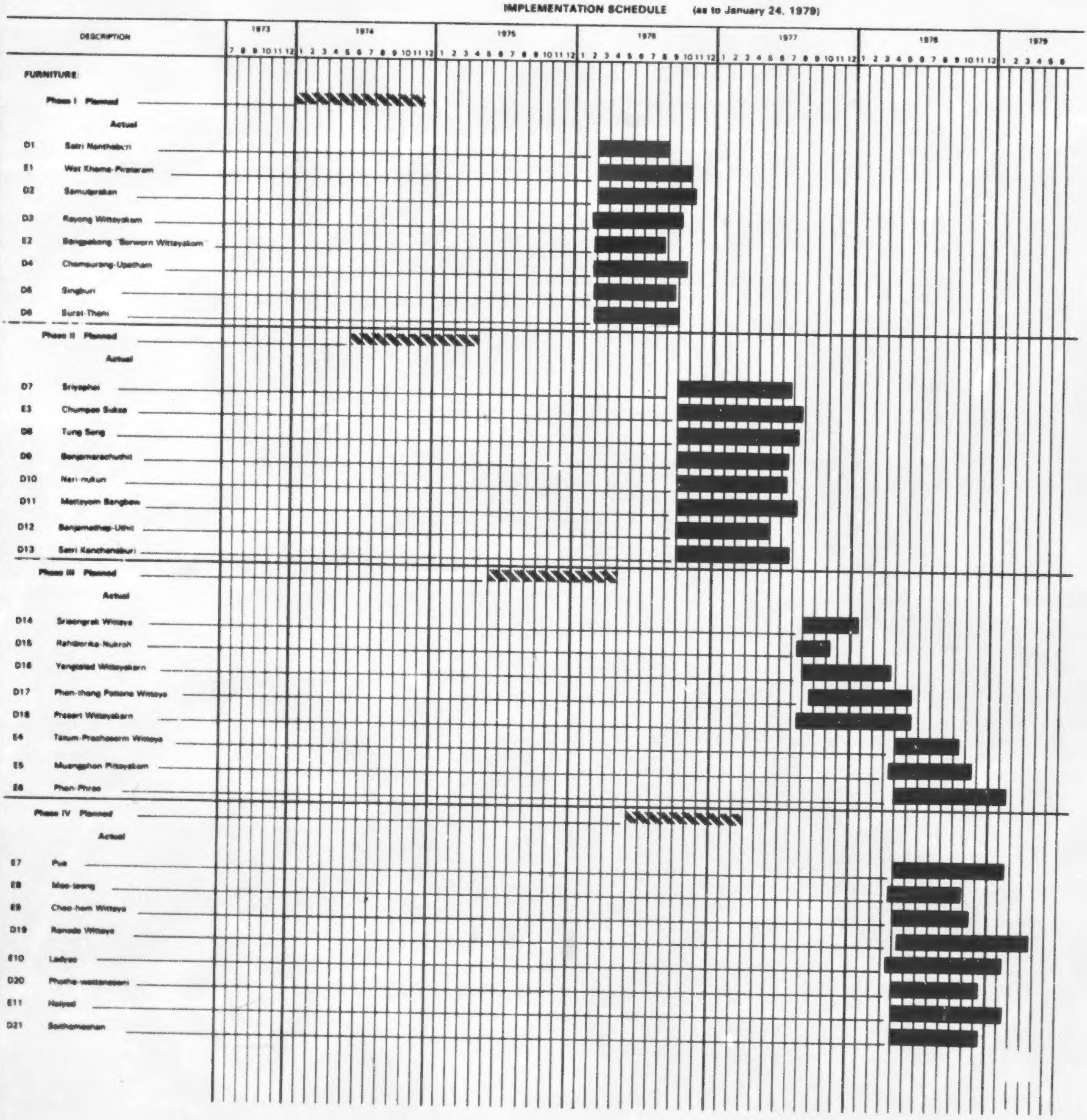
THIRD EDUCATION PROJECT (RSS)

IMPLEMENTATION SCHEDULE (as to January 24, 1979)



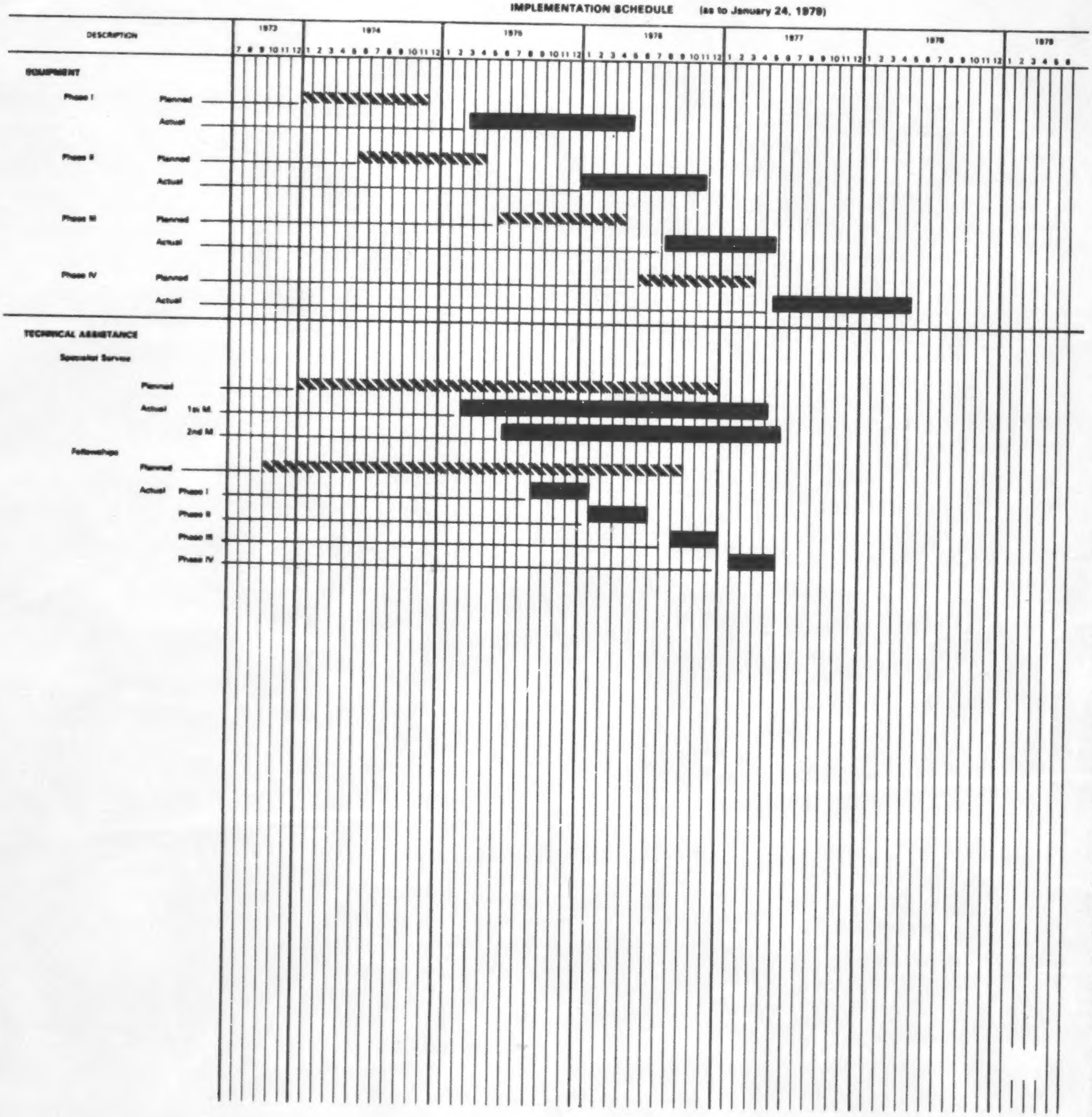
THIRD EDUCATION PROJECT (RSS)

IMPLEMENTATION SCHEDULE (as to January 24, 1979)



THIRD EDUCATION PROJECT (RSS)

IMPLEMENTATION SCHEDULE (as to January 24, 1979)



APPENDIX L

DISTRIBUTION OF SECONDARY SCHOOL FEE RATES IN 1977 FOR THE 1960 LOWER SECONDARY CURRICULUM

Table 143

Distribution of Secondary School Fee Rates in 1977 for the 1960 Lower Secondary Curriculum

School	(Rates in 1977 School Year in Baht)																												Total
	65	80*	100	120*	130*	155	160*	165	170*	180*	190	200	210*	220*	230*	240	260*	270*	280*	290	300	310*	320*	330*	350	360*	370*	410*	
Bangkok School							1		1	1			1	3			9	1			1	51			1	2		9	81
							1.2		1.2	1.2			1.2	3.7			11.2	1.2			1.2	63.0			1.2	2.5		11.2	100.00%
Provincial School				2			1							12			9	12			1	19	4	1		8	1	8	78
				2.6			1.3							15.4			11.5	15.4			1.3	24.4	5.1	1.3		10.2	1.3	10.2	100.00%

APPENDIX M

PARTICIPANTS IN THE UNIVERSITY OF ALBERTA TRAINING PROGRAM

(September, 1975 to May, 1977)

Table 144

Participants in Thailand Project II, The University of Alberta, September, 1975 - May, 1977

(Office of Special Projects Data, 1979)

Name	Position	School	Province	Present Address
Group 1 -- Sept. 1975 - Jan. 1976				
Mrs. Banjong Niwasabut	Principal	Satri Nonthaburi	Nonthaburi	
Mrs. Kalayanee Tejasen	Academic Head	Satri Nonthaburi	Nonthaburi	
Mr. Banjob Sermtong	Principal	Samutprakan	Samutprakan	
Miss Sripraphai Pruchaya	Academic Head	Samutprakan	Samutprakan	
Mrs. Chomyong Supatanabutra	Principal	Rayong Wittayakom	Rayong	
Mr. Peerapat Songtiang	Academic Head	Rayong Wittayakom	Rayong	
Mrs. Apaa Udomrat	Principal	Chomsurang-Upatham	Phranakorn Sri-Ayutthaya	
Mr. Theranont Limkatturatana	Academic Head	Chomsurang-Upatham	Phranakorn Sri-Ayutthaya	
Mr. Panom Choonhasevi	Principal	Singburi	Singburi	Diretor of the Division of Finance, Dept. of General Education
Mr. Muang Thongying	Academic Head	Singburi	Singburi	
Mr. Choom Tawiwitayarasmi	Principal	Surat-Thani	Surat-Thani	
Mr. Chird Kongthong	Academic Head	Surat-Thani	Surat-Thani	
Mrs. Nanthiya Ngamkam	Principal	Rahtborika-Nukroh	Rajburi	
Mr. Suwit Manitkoon	Academic Head	Rahtborika-Nukroh	Rajburi	
Mr. Kong Bhothibundit	Principal	Pan-Phrao	Nongkhai	
Mr. Chuan Boonsanphan	Academic Head	Pan-Phrao	Nongkhai	Principal of Hin-ngom Pittayalai School (Non-Project School)
Group 2 -- Feb. 1976 - June 1976				
Mr. Chua Maichareon	Principal	Wat Khema-pirataram	Nonthaburi	Principal of Tepsirin School (Non-Project School)
Mr. Preecha Torboonsupachai	Academic Head	Wat Khema-pirataram	Nonthaburi	
Mr. Manoon Yoswichit	Principal	Tatum-prachasermwit	Surin	
Mr. Chaipong Saichua	Academic Head	Tatum-prachasermwit	Surin	
Mr. Paeng Thongpleu	Principal	Srisongrak Wittaya	Loei	
Mr. Anuguon Bootham	Academic Head	Srisongrak Wittaya	Loei	
Mr. Prayoon Sombatheera	Principal	Muangphon Pittayakom	Khon-Kaen	
Mr. Chai Chanindranookool	Academic Head	Muangphon Pittayakom	Khon-Kaen	Teacher of Prasart Wittayakarn School, Surin
Mr. Thirachai Thirakul	Principal	Yangtalad Wittayakarn	Kalasin	
Mr. Meedet Panthapol	Academic Head	Yangtalad Wittayakarn	Kalasin	
Mr. Rangsan Chuenchom	Principal	Phon-thong Pattana Wittaya	Roi-Et	
Mr. Luen Srichantra	Academic Head	Phon-thong Pattana Wittaya	Roi-Et	
Mr. Boonsidthi Seetalanook	Principal	Prasart Wittayakarn	Surin	Teacher of Burirum Pittayakom School
Mr. Somchart Jadsri	Academic Head	Prasart Wittayakarn	Surin	Dead
Mr. Prateep Sarimanond	Academic Head	Bangpakong	Chachoengsao	Supervisor in Chachoengsao
Mr. Sanoh Matee	Teacher	Pibul Wittayalai	Lopburi	Supervisor in Lopburi

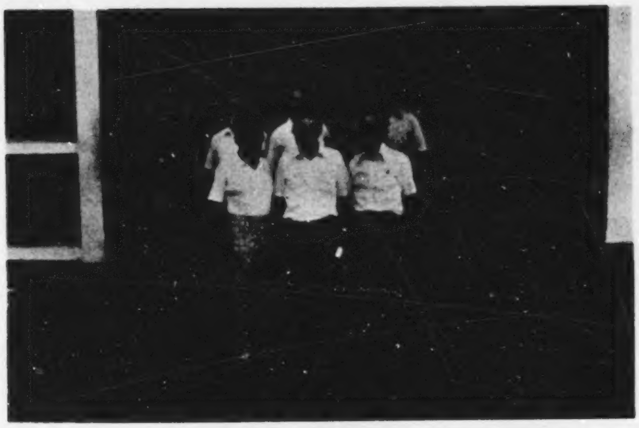
Table 144 (Continued)

Participants in Thailand Project II, The University of Alberta, September, 1975 - May, 1977

(Office of Special Projects Data, 1979)

Name	Position	School	Province	Present Address
Group 3 -- Sept. 1976 - Dec. 1976				
Mr. Wan Chanphet	Principal	Sriyaphai	Chumporn	
Mr. Chatchawal Thongrod	Academic Head	Sriyaphai	Chumporn	
Mr. Somkit Komkai	Principal	Chumpae Suksa	Khon Kaen	
Miss Nittaya Wannakul	Academic Head	Chumpae Suksa	Khon Kaen	Tayang Pittaya School, Phetburi (Non-Project School)
Mr. Supanon Sachaluetawong	Principal	Tung Song	Nakorn Sri-Thamarat	
Mr. Manoon Kanjanapak	Academic Head	Tung Song	Nakorn Sri-Thamarat	
Mr. Anont Nantaprichar	Principal	Benjamarachuthit	Rajburi	
Mr. Somboon Paetamai	Academic Head	Benjamarachuthit	Rajburi	
Mrs. Sirilak Nanthapisal	Principal	Nari-nukun	Ubonratcha-Thani	Principal of Anukulnaree School, Kalasin (Non-Project School)
Mrs. Jariya Sarakarn	Academic Head	Nari-nukun	Ubonratcha-Thani	
Mr. Satien Khamnet	Principal	Bangbaw Wittayakom	Samutprakan	
Mr. Pragas Suwankhosit	Academic Head	Bangbaw Wittayakom	Samutprakan	
Miss Ladda Chakorn	Principal	Benjamathep-Uthit	Phetburi	
Mr. Nakorn Tungkapipop	Academic Head	Benjamathep-Uthit	Phetburi	
Mrs. Lamyai Siriwechapun	Principal	Satri Kanchanaburi	Kanchanaburi	
Miss Arob Chaosethakun	Academic Head	Satri Kanchanaburi	Kanchanaburi	
Group 4 -- Feb. 1977 - May 1977				
Mr. Chupong Hempisut	Academic Head	Pua	Nan	
Mr. Tong Insee	Principal	Mae-Taeng	Chieng Mai	
Mr. Charun Suppasri	Academic Head	Mae-Taeng	Chieng Mai	
Mr. Paeng Srapinkornburi	Principal	Chae-hom Wittaya	Lampang	
Mr. Nipon Meesook	Academic Head	Chae-hom Wittaya	Lampang	
Mr. Kanit Choopongs	Principal	Ranode Wittaya	Songkla	
Mr. Jarut Booniti	Academic Head	Ranode Wittaya	Songkla	
Mr. Paiboon Chuchalerm	Principal	Ladyao Wittayakom	Nakorn Sawan	
Mr. Paiboon Pravoottanont	Academic Head	Ladyao Wittayakom	Nakorn Sawan	
Mr. Vichit Kamtong	Principal	Prasart Wittayakarn	Surin	
Miss Niwa Rungsritananon	Academic Head	Phota-Wattanaseni	Rajburi	
Mr. Sawang Olarikabutr	Principal	Hoiyod	Trang	
Miss Madee Prongkaew	Academic Head	Hoiyod	Trang	
Mr. Thanom Tanhapong	Officer	Division of Secondary Education	Bangkok	Principal of Yotinburana School, Bangkok, (Non-Project School)
Mr. Wera Kengtong	Academic Head	Saithamachan	Rajburi	
Mr. Kanuengsak Kamtam	Teacher	Benjama-Maharaj	Ubornratcha Thani	Diversified Secondary Education Unit, Bangkok

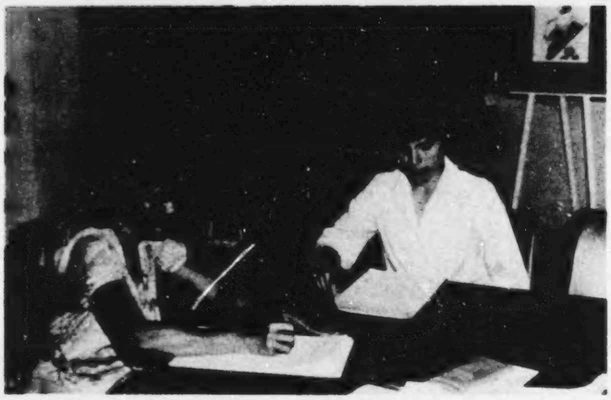
FIELD WORK TEAMS



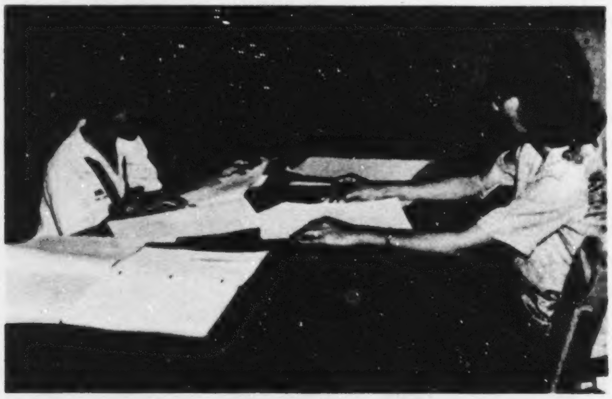
Reconnaissance Phase (July, 1978)

Basic Planning and Pre-testing (January - February, 1979)

Data-Gathering (July - August, 1979)



Interviewing a Teacher, Sriyaphai School, July, 1979



Interviewing a Student,
Photaram Wattanaseni School, August, 1979

Consulting with Principal and Administrative Staff,
Phon Tong School, August, 1979